iCOMPLY

Comprehensive Compliance Training

Education for Responsible & Compliant Commercial Cannabis Operators

2020

TABLE OF CONTENTS

MISSION STATEMENT

iComply, LLC's mission is to provide our clients with the most relevant, useful, meaningful, and comprehensive cannabis regulatory compliance support by delivering leadership, integrity, and excellence in every service we offer.

We embody impeccable quality and value through our commitment, passion, and dedication to deliver our customers' best performance, the cannabis industry, and the public's health and safety. Our objective is to help you feel engaged, educated, and empowered!

In general, compliance means conforming to a rule, such as a specification, policy, standard, or law. Regulatory compliance is a fundamental goal that cannabis organizations must aspire to. This is best achieved by everyone knowing and following procedures to comply with laws and regulations relevant to their roles and responsibilities.

Each employee must have a complete and thorough understanding of the laws, rules, and regulations that pertains to them. This understanding is essential in protecting everyone as the industry moves from prohibition to a legal, regulated model.

If you require additional instruction or clarity on any aspect of our training, please let your trainer know. We encourage your feedback and suggestions to foster continual growth and improvement.

OUR GOAL

Our goal is to ensure that you are knowledgeable, competent, and confident in the duties and responsibilities required to perform your job in a compliant manner. As the operator or manager of a commercial cannabis operation, it is our duty to help you navigate the complex regulations which govern the permissible activities across all license types.

OUR OBJECTIVE

By the conclusion of this training program, students and attendees will demonstrate knowledge of the many complex rules and regulations that govern the actions we take as operators and managers of cannabis businesses. Operators and managers, upon completion of this program will have a comprehensive understanding related to the following:

- Regulator Enforcement (State, Local, and Federal).
- Compliance with commercial cannabis activities, including but not limited to:
    - Cultivation operations;
    - Manufacturing operations;
    - Testing requirements;
    - Transportation and distribution;
    - Packaging and labeling requirements;
    - Dispensary operations; and
    - Responsible vending.

REGULATORY TERMS

Word	*Definition or Meaning*
Department	The Department of Health and Senior Services, or its successor agency.
Disqualifying Felony Offense	A violation of, and conviction of, or guilty plea to, state or federal law that is, or would have been, a felony under Missouri law, regardless of the sentence imposed, unless the Department determines that: 1. The person's conviction was for the medical use of marijuana or assisting in the medical use of marijuana; 2. The person's conviction was for a non-violent crime for which he or she was not incarcerated, and that is more than five years old; or 3. More than five years have passed since the person was released from parole or probation, and he or she has not been convicted of any subsequent criminal offenses.
Entity	Refers to a natural person, corporation, professional corporation, nonprofit corporation, cooperative corporation, unincorporated association, business trust, limited liability partnership, joint venture, or any other legal entity.
Identification Card	This means a document, whether in paper or electronic format, issued by the Department that authorized a qualifying patient, primary caregiver, employee, or a contractor of a licensed facility to access medical marijuana as provided by the law.
Marijuana or "Marihuana"	Refers to *Cannabis indica, Cannabis sativa,* and *Cannabis ruderalis*, hybrids of such species, and any other strains commonly understood within the scientific community to constitute marijuana, as well as the resin extracted from the plant and marijuana-infused products. Marijuana does not include industrial hemp containing a crop-wide average tetrahydrocannabinol concentration that does not exceed three-tenths of one percent (0.3%) on a dry weight basis, or commodities or products manufactured from industrial hemp.
Medical Use	This refers to the production, processing, delivery, distribution, transportation, or administration of marijuana or a marijuana-infused product, or drug paraphernalia used to administer marijuana or a marijuana-infused product for the benefit of a qualifying patient to mitigate the symptoms or effects of the patient's qualify medical condition.
Public Place	Refers to any public or private property, or a portion of public or private property, that is open to the public, including but not limited to, sidewalks, streets, bridges, parks, schools, and businesses. However, for purposes of designating a non-public place within a public place, the owner or entity with control of any such property may, but is not required to provide, one (1), ore more enclosed,

	private spaces where one (1) qualifying patient and, if required by the owner or entity with control of any such property, a representative of such owner or entity, may congregate for the qualifying patient to consume medical marijuana. The qualifying patient may be accompanied by the family of the qualifying patient, the qualifying patient's primary caregiver, and/or the qualifying patient's physician. The owner or entity with control of any such p[ropery may provide such a space by individual request or designate such a space for ongoing use and may limit use of medical marijuana in that space to uses that do not produce smoke. Any such premises shall be given in writing and provided to the qualifying patient or publicly posted prior to a qualifying patient's use of medical marijuana in that space.
Seed-to-Sale Tracking System	A software system, including the statewide track and trace system, designed to perform functions necessary to fulfill a licensed or certified facility's responsibilities in tracking medical marijuana from either the seed or immature plant stage until the medical marijuana is sold to a qualifying patient or primary caregiver.
Statewide Track and Trace System	The system the Department uses to track medical marijuana from either the seed or immature plant stage until the medical marijuana is sold to a qualifying patient or primary caregiver to ensure that all medical marijuana sold in Missouri was cultivated or manufactured in Missouri, that all medical marijuana cultivated or manufactured in Missouri is sold only by dispensaries and only to individuals in possession of a valid qualifying patient or primary caregiver identification card, and that any given qualifying patient or primary caregiver is only purchasing the amount of medical marijuana he or she is approved to purchase at any given time.

MISSOURI'S MEDICAL MARIJUANA INDUSTRY

Missouri's passage of Amendment 2 had been a long-time moment in the making for many years. In general, cannabis reform slowly made its way across the State for more than a decade. Sixteen years ago, in 2004, residents of Columbia, Missouri, took one of the State's first steps in cannabis reform and passed a ballot measure to decriminalize cannabis.

Columbia's ballot measure was ahead of its time for this type of advocacy, not just in Missouri but also for the country. Columbia's ballot measure called for possession of up to 35 grams to be dealt with in municipal court as a non-criminal offense and punishable by a fine not to exceed $250. This is a far cry from the typical criminal punishment many non-violent, small possession offenders experience still to this day.

A decade after Columbia voters passed their ballot measure to decriminalize cannabis, the Missouri State Senate passed Senate Bill 491. Senate Bill 491 was historical for the State and set in motion reduced penalties for specific cannabis-related offenses. In the same year, Governor Jay Nixon signed House Bill 2238 into law, which legalized CBD oil to treat epilepsy or other seizure disorders. Finally, in 2018 sixty-five (65) percent of voters passed Amendment 2 over Amendment 3 and Proposition C to legalize the medicinal use of cannabis in Missouri.

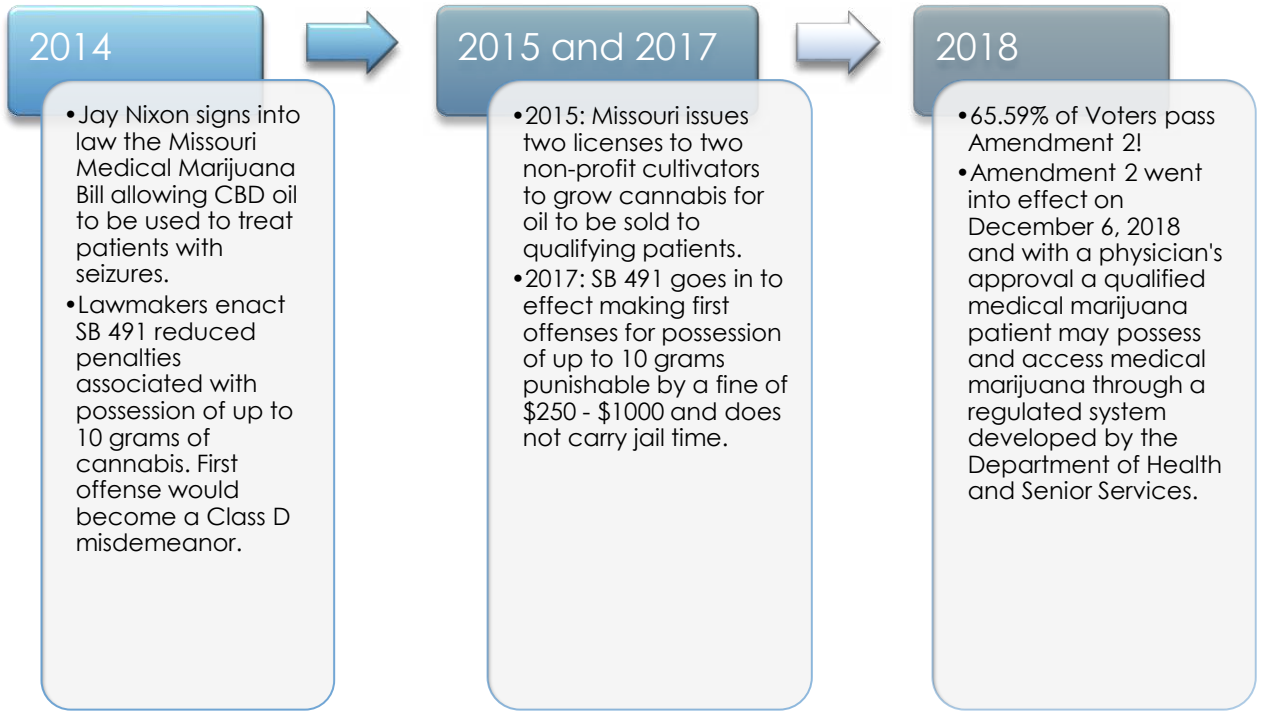


Image 1 – New Approach Missouri Logo

With Amendment 2's passage, things began to move quickly in Missouri. Article XIV became effective on December 6, 2018, and one month later, on January 10, 2019, the Department issued a press release drawing attention to the public rulemaking sessions. Throughout the winter and spring of 2019, the Department made the necessary arrangements to structure and developed Missouri's budding medical marijuana infrastructure. On June 4, 2019, the Department provided the public with sample applications, forms, and instructions to participate in the State's medical marijuana program, per the constitutional requirement in Article XIV.

With the framework in place, interested entities or individuals were poised and ready to apply to the licensure department.

MEDICAL MARIJUANA FACILITY LICENSE TYPES AND AVAILABILITY

Missouri issued its limited number of licenses and certificates to entities to participate in its medical marijuana program after an extremely competitive and highly sought-after licensing process. To date (as of April 2020), Missouri has awarded the following number of Licenses per facility type:

License Type	*Number of Licenses Issued*
Medical Marijuana Cultivation Facility	60 Licensed
Medical Marijuana Infused-Products Manufacturer Facility	86 Licensed
Medical Marijuana Dispensary Facility	192 Licensed
Medical Marijuana Testing Facility	10 Licensed
Medical Marijuana Transportation Facility	18 Licensed

MEDICAL MARIJUANA PATIENTS, CAREGIVERS, AND HOME CULTIVATORS

In addition to the overwhelming volume of applications received for a Regulated Marijuana Business License in Missouri, the Department has also seen an increase month over month of applicants for Patients, Patient Cultivation, Caregiver and Caregiver Cultivation.

The Department has provided the following table highlighting the steady increase of applications:

Month / Year	Total Patient Applicants	Total Caregiver Applicants	Patient Cultivator	Caregiver Cultivator
06/2019	1,044	2	492	1
07/2019	3,851	109	1,370	53
08/2019	4,578	128	1,513	66
09/2019	4,621	129	1,464	73
10/2019	4,940	129	1,411	82
11/2019	4,539	160	1,118	93
12/2019	4,510	182	1,093	98
01/2020	5,223	204	1,197	134
02/2020	5,717	193	1,153	110
TOTALS	39,020	1,236	10,811	710

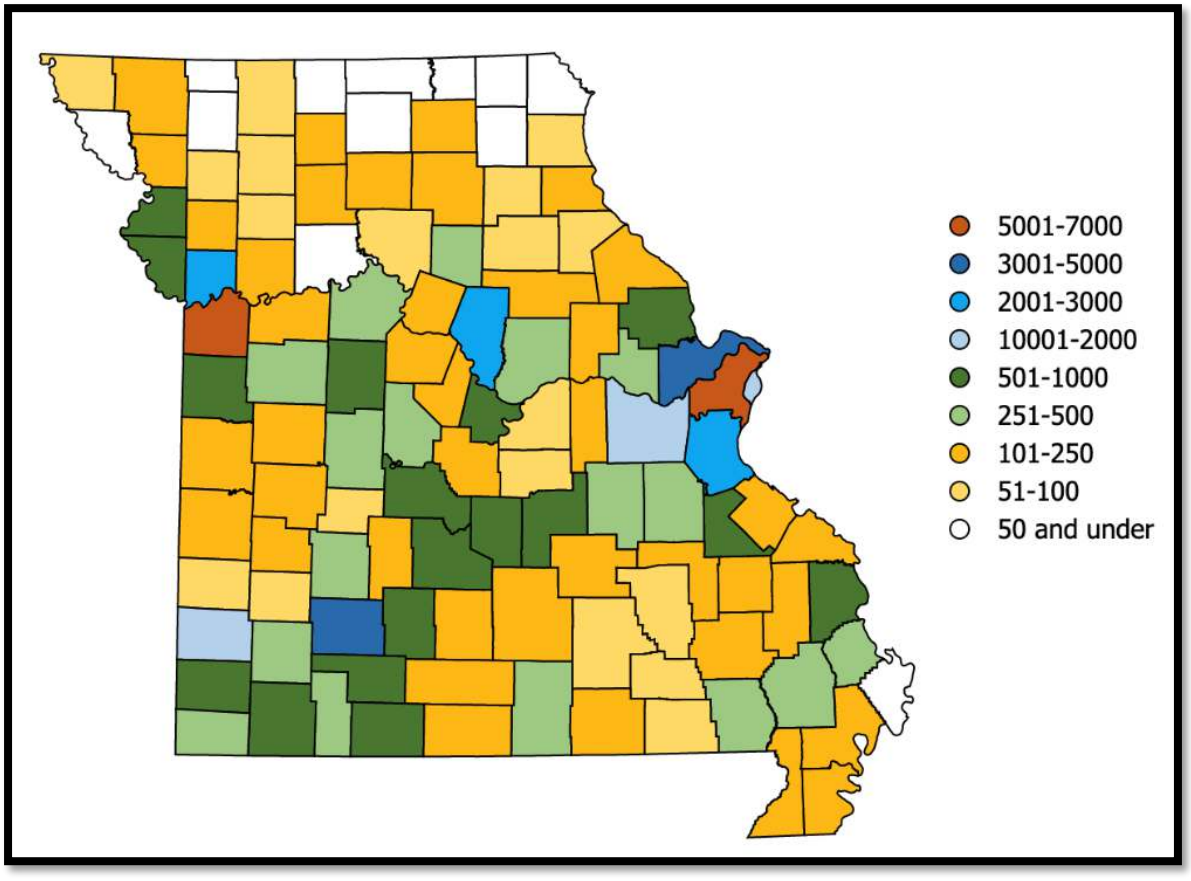


Image 2 - MO Medical Patient Distribution by County (August 31, 2020)

HOW RULES ARE MADE

Following the overwhelming passage of Amendment 2, the power to execute the voters' will was entrusted with the Department of Health and Senior Services, also known as the "Department." The Department derives its authority from the Missouri Code of Regulations (CSR), Title 19 – Department of Health and Senior Services, Division 30, Division of Regulation and Licensure, Chapter 95, Medical Marijuana. More specifically, 19 CSR 30-95.025 (General Applicable Provisions) of the Rules establishes the Department of Health and Senior Services as the authority that may "promulgate rules for the enforcement of Article XIV, Section 1 of the Missouri Constitution."

This subsection of the Missouri Code of Regulations is specifically for implementing the State's medical marijuana program and outlines the Department's necessary provisions for the proper and safe execution of Missouri's medical marijuana program. As such, and per regulation, the Department has the full authority to oversee the following conditions as required:

1. Patient Registry Access;
2. Variances in inventory;
3. Complaints; and
4. Evaluate Facility Criteria.

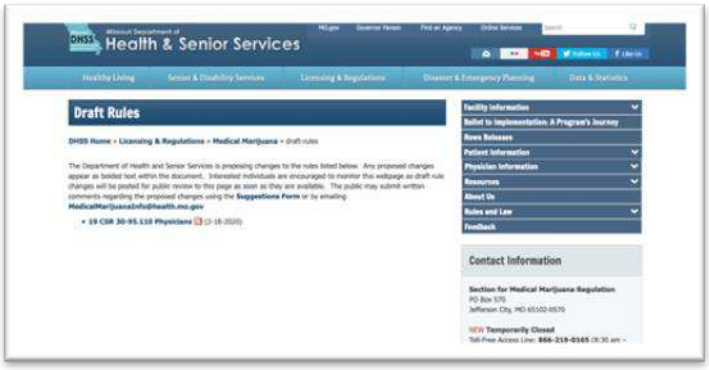


Image 3 - The Departments MMJ Draft Rules Webpage

In early 2019, the Department of Health and Senior Services held five (5) public forums, engaged with various public agencies, and responded to an onslaught of daily inquires and industry stakeholders' suggestions. After considering all stakeholders' diverse viewpoints, the Department was able to draft emergency and proposed rules to effectively rollout Article XIV of the Missouri Constitution. The final regulations were submitted to the Secretary of State on May 24, 2020.

The Department has since proposed Emergency Rules, per their authority, to address and alleviate the unforeseen woes caused by the large volume of applicants for licensing. The Emergency Rule, 19 CSR 30-95.028 (Additional Licensing Procedures), was published on January 2, 2020, in the Missouri Register, Volume 45, Number 1.

The stated purpose of these emergency rules as being that "This rule explains what provisions are necessary for ensuring an efficient facility licensing/certification process after the initial process of scoring and ranking applications is complete."

The Department further clarifies their position, stating that, "There is no direction in Article XIV for how to fill open licenses/certifications if they become available soon after an initial application scoring period. This emergency rule fills the need to specify how the Department will address such a situation."

FEDERAL ENFORCEMENT PRIORITIES

States that have enacted medical or retail regulated cannabis Laws, such as Colorado, California, Louisiana, Nevada, Missouri, and many others, by default, must pass stringent regulations and enforcement for their regulated cannabis markets to function.

Regulated cannabis programs must be governed under such scrutiny and overreaching regulations because of the nature and legality of cannabis. Regulated cannabis programs vary from State to State; however, there are common themes across all the states with enacted medical or retail regulated cannabis Laws.

The regulated cannabis industry blatantly violates Federal law so long as cannabis remains a Schedule I substance. The Federal Department of Justice (DOJ) had previously issued a memorandum (The Cole Memo), allowing "legal" cannabis businesses to continue violating Federal law without interference so long as we, the operators of the industry, can demonstrate apparent, unambiguous compliance with State law. However, the protections offered in the Cole Memo were rescinded in 2018 by then-Attorney General Jeff Sessions.

Image 4 - DOJ Logo

In response to Attorney General Jeff Sessions rescinding of the Cole Memo, the House of Representatives introduced the Sensible Enforcement of Cannabis Act of 2019 to continue safeguarding regulated cannabis Businesses that uphold the DOJ priorities listed in Cole Memo. The Sensible Enforcement of Cannabis Act of 2019 has not been passed by Congress but keeps the Cole Memo spirit. Regulated cannabis operators that enforce the following Federal priorities will unlikely be the target of Federal Prosecutors:

1. Preventing the distribution of cannabis to minors.
2. Preventing the revenue from the sale of cannabis from going to cartels and other criminal organizations.
3. Preventing the diversion of cannabis goods and products to other states with laws that do not allow for the lawful possession of cannabis.
4. Preventing State-sanctioned cannabis production and sale from being used as a cover for the sale of illegal drugs or other unlawful activity.
5. Preventing violence and the use of firearms in cannabis cultivation and distribution.
6. Preventing drugged driving and other adverse health consequences relating to public health and safety.
7. Preventing the cultivation of cannabis on public land.
8. Preventing the possession or use of cannabis on all federal property\

STATE LAWS COVER THESE PRIORITIES SO THAT WE CAN ALL CONTINUE TO "LEGALLY VIOLATE FEDERAL LAW." WE ARE "TOLERATED" AS QUASI-LEGAL FEDERAL CRIMINALS.

DUTIES AND POWERS OF THE DEPARTMENT

The Department of Health and Senior Services, also known just as the "Department," is responsible for Missouri's Medical Marijuana program's implementation and rollout.

This authority was granted to the Department with the passage of Amendment 2 to enforce Article XIV, which became effective December 6, 2018. Article XIV allows the Department to:

- Grant or refuse state licenses and certificates;
- Promulgate rules and emergency rules as necessary;
- Require a seed-to-sale tracking system;
- Issue standards for the secure transportation of medical marijuana and medical Marijuana-infused product; and
- Make available to the public application forms and instructions for:
    - Qualifying patients;
    - Primary caregivers;
    - Patient cultivation identification cards;
    - Medical marijuana cultivation;
    - Medical marijuana testing;
    - Medical marijuana dispensing; and
    - Medical Marijuana-infused products manufacturing.

Image 5 - DHSS Logo

The Department has the explicit authority to implement and enforce rules and emergency rules put into place by the agency. This authority allows the Department to ensure that all regulated marijuana businesses are compliant with all imposed regulations or emergency rules while operating their business. They may enforce laws by denying, suspending, fining, restricting, or evening revoking state-issued licenses and certificates.

Furthermore, the Department's authority extends to mandated inspections, investigations, searches, and, if necessary, property seizure. The Department must have unrestricted access to all licensed premises where regulated marijuana activities occur, and all books and records related to the regulated marijuana business's operation.

The Department may also elect to consult with other public agencies, such as local law enforcement, fire department, and health and safety agency, to enforce any rule and regulation through mandatory inspections or administrative actions. Operators of regulated marijuana businesses must ensure compliance with the Department, local, State, and federal agencies are met.

For example, all marijuana cultivators should comply with the Environmental Protection Agencies (EPA) Worker Protection Standard (WPS). All marijuana-infused products manufacturers making infused-edible products should be Serve Safe, or its Equivalent, certified.

ENFORCEMENT BY THE DEPARTMENT

All operators and their employees need to always bear in mind that the Department has the constitutional authority to enforce its own rules and regulations. Department enforcement might come in the form of a fine, fee, monetary penalty, instructions to cease operations, in part or whole, and suspending, denying, or outright revoking licenses and certificates.

Rule 19 CSR 30-94.040 (1)(F) establishes the Department's authority and right to suspend, deny, or revoke licenses and certifications for any facility. Facility operators may have their operating license suspended, denied, or revoked for any of the following reasons:

Violation	Penalty	Rule
The medical marijuana facility violates any Department regulation or fails to comply with any Department provided a corrective action plan.	Suspension; or Revocation	19 CSR 30-95.040 (1)(F)2.
The medical marijuana facility fails to comply with any Department order to cease any operation, in part or whole.	Revocation	19 CSR 30-95.040 (1)(F)5.
Using solvents, combustible gases, or other chemicals to extract cannabinoids or resin from marijuana without a valid manufacturing license.	Suspension up to one (1) year	19 CSR 30-95.040 (1)(F)7.
Packaging any medical marijuana in a false or misleading manner. This includes using graphics and images like commonplace non-marijuana product brands.	Suspension; or Revocation	19 CSR 30-95.040 (1)(F)8.
Failure to comply with Seed-to-Sale tracking requirements. This includes jeopardizing the integrity of the Seed-to-Sale system through omissions or falsification of the data.	Revocation.	19 CSR 30-95.040 (1)(F)9.

FACILITY INSPECTIONS AND THE DEPARTMENTS RIGHT TO ACCESS

If it has not yet been made clear by now, the Department has the overreaching authority to conduct itself as necessary to ensure Missouri's medical marijuana program's integrity. The Department's rule permits itself to conduct on-site inspections and have unrestricted access to the licensed premises; this includes vehicles, too!

Consent for the Department's right to access begins when an applicant applies for a facility license or certificate. The Department and its representatives conducting on-site inspections must not provide prior notice to the facility operator before conducting their inspection. The Departments' ability to conduct checks unannounced underscores an operator's need always to ensure full compliance at every level of their operation.

COMMENCEMENT INSPECTIONS

Entities that were awarded a facility license are still prohibited from beginning any operations that directly involve working with medical marijuana in any form until they have passed a Department commencement inspection.

At the time of a commencement inspection, a representative of the Department will inspect every inch of the facility's premises to ensure full compliance with all Department requirements. In addition to examining the physical facility, they will also review the facilities' operational documents.

Documents provided to the Department for Commencement Inspections must be facility and site-specific and cannot be "boilerplate" documents. The documents the Department will request include, but are not limited to:

- An organization ("Org") chart.
- Job descriptions and defining roles and responsibilities.
- Training Logs.
- Emergency action plans.
- Standard Operating Procedures.
- Proof of insurance.
- Site security procedures; and
- METRC (Seed to Sale) Customer ID.

Failure to be prepared for the commencement inspection may lead to a significant delay in beginning operations. However, facilities in direct violation of the Department's rules could be denied their license or certificate. Before requesting a commencement inspection, it is in the facility operator's best interest to conduct a facility-wide audit to ensure adherence to all Department regulations.

ANNUAL AND RANDOM INSPECTIONS

The Department will conduct a scheduled or unannounced inspection every year following the initial commencement inspection. However, the Department reserves the right to conduct random checks outside of its routine inspections. The Department may conduct these random inspections as part of its standard procedure or because they have reason to believe the facility is not operating within the confines of the rules.

Regardless of whether the inspection is annual or random, the Department always maintains its right to access. The Department's right of access permits it to review all physical premises, including vehicles and intellectual property, such as training procedures and standard operating procedures, and all documents related to the facilities operation. At times, the Department may even request an interview with an owner or an employee agent. Interviews must be granted by the individual within five (5) days of the Departments' request.

Entities that violate the Department's rules during any inspection will receive a notice of violation from the Department.

NOTICE OF VIOLATION

The intense oversight and regulation within Missouri's regulated medical marijuana industry come with a rigid enforcement structure, including fines, fees, license suspension, revocations, and potential jail time. Remember, the Department is permitted to inspect any licensed facility as it sees fit.

During an inspection or through other means, such as a compliant, if the Department determines that a facility is non-compliant, the Department has the authority to issue an "Initial Notice of Violation."

INITIAL NOTICE OF VIOLATION

The Initial Notice of Violation explains how and where the facility violated the Department's rules and regulations. The Initial Notice of Violation also dictates what steps need to be taken by the entity to correct the violation.

Upon receipt of the Initial Notice of Violation, the entity has fifteen (15) days to rectify the identified violation(s). The Department will then conduct a follow-up inspection. The follow-up inspection will occur on or after the fifteenth (15) day and up to thirty (30) days after the violation was issued to ensure the entity has resolved the identified violation.

Suppose the Department's follow-up inspection reveals that the violation identified in the Initial Notice of Violation has not been adequately corrected or addressed. In that case, it will issue a Final Notice of Violation to the entity. The Final Notice of Violation will explain how the entity is in the continued violation of the Department's regulations.

FINAL NOTICE OF VIOLATION

The Final Notice of Violation will further clarify and explain how to remediate the previously identified violation. Entities that receive a Final Notice of Violation must be mindful to properly correct the identified violation within thirty (30) days of receiving the violation because failure to do so again will result in a license suspension.

Once the thirty (30) days have elapsed since the Final Notice of Violation was issued, the Department will conduct a final inspection to see if it has remediated the identified violation. If the entity could not remediate the violation, the Department will suspend the entities' license and require that the entity cease all commercial activities. Upon suspension of operations, the entity must sign a Department issued corrective action plan, which must be followed and executed before the entity may continue operations.

PENALTIES FOR VIOLATIONS

As of January 1, 2020, several violations and associated penalties have been identified under Rule 19 CSR 30-95.025 (Generally Applicable Provisions). Paragraph (5) recognizes that the Department will impose sanctions for the following:

1. Possession amounts exceeding the legal limit;

a. It will result in revocation of the identification card and may carry a fine up to $200.

2. Failure to comply with packaging and labeling requirements.
   a. Each failure to comply will incur a penalty of $5,000 for each category violated and a recall of all affected packaged products.
3. Performing any extraction process with Liquid Petroleum Gases (LPG), combustible gases, or other hazardous and dangerous solvents without the proper license and approved facility design.
   a. Failure to comply with this can impact patients, caregivers, and Entities. Patients or caregivers may have their identification card revoked and be fined $200 for any extraction involving hazardous solvents. In contrast, an Entity will face license suspension and incur a penalty of $10,000.

Please be aware the Department has the authority and discretion to determine if a facility possesses an immediate threat to the health and safety of the facility or the public. If the Department makes such a determination, it can immediately suspend operations until the health and safety issues have been resolved.

COMPLAINTS AGAINST THE ENTITY

Individuals employed by an entity that violates the Department's rules may file formal complaints without fear of retaliation, including termination. Complaints may be submitted online by going to http://medicalmarijuana.mo.gov/ and using the provided contact from the Departments contact page. All complaints are required by rule to contain the following information:

1) Name and Address of the Facility
2) A clear description of the violation

Upon receipt of a complaint, the Department will decide whether an inspection of the facility is warranted. The Department will evaluate each complaint received and make this determination. If the claim results in a facility inspection, the entity will receive a copy of the inspection report's criticism.

APPEALS

Licensed or certified entities that experience licensure or certification revocation, suspension, or denial may appeal before the Administrative Hearing Commission. In addition to individuals who have applied as patients, primary caregivers, patient cultivators, or their facility identification cards, they may also apply for an appeal before the administrative hearing commission for denials, revocations, and suspension. Businesses or individuals seeking an appeal must do so within 30 days from when the Department revoked, suspended, or denied licensure or certification.

MITIGATING AND AGGRAVATING FACTORS

Mitigating and aggravating factors are circumstances or situations the state regulatory agencies may consider surrounding any violation. These factors, once considered, may severely impact or determine the severity of an imposed penalty. The circumstances surrounding any penalty or administrative action is determined on a case-by-case basis.

MITIGATING FACTORS

Mitigating Factors are factors taken into consideration during the investigation of License Violations that might reduce or eliminate administrative actions. Mitigating factors may include the following:

- The response that was taken by the entity to prevent the violation (e.g., training provided to employees);
- Corrective action(s) made by the entity in the event of a violation;
- Entity's history of success or failure with compliance checks;
- Likelihood of the recurrence of the violation;
- Having adequate standard operating procedures and supporting operational documentation; and
- Transparency and willful cooperation with the Department or investigating agency.

AGGRAVATING FACTORS

Aggravating Factors are factors considered in determining the severity of license violations, which might increase or escalate administrative actions. Aggravating factors may include the following:

- The type of violation;
- Deliberate omission or falsifying of records or the track-and-trace system;
- Prevailing circumstances surrounding the violation, for example, may include, but are not limited to:
    - Failure to pay a fine imposed by the Department;
    - Failure to take reasonable steps to correct objectionable conditions on the Licensed Premises; and
    - Permitting the sale of controlled substances or other dangerous drugs on the Licensed Premises.

FACILITIES AND OPERATIONS

19 CSR 30-95.040 of the Medical Marijuana Rules stipulates the general, overall facility requirements for all licensed Medical Marijuana businesses in Missouri. This section includes a detailed breakdown of the application process and requirements, facility ownership, employment requirements, and general facility operations, policies, and procedures. The Department opened license and certification application submissions to the public on Saturday, August 3, 2019, for 192 dispensary licenses, 60 cultivation, and 86 processing licenses.

However, before discussing the facility and the operational requirements that all entities must adhere to once licensed, it is first essential to understand the licensure process and the requirements entities must meet first to become licensed.

LICENSURE

The Department was overwhelmed with an avalanche of applicants; over 2,200 applications were received! Currently, and because of the overwhelming application turnout, the Department is dealing with appeals filed by organizations denied licensure. The fallout from this appeals process has yet to sort itself out as of this time; however, the Department has continued to push ahead with preparing the "winners" of Medical Marijuana licenses for regulated operation.

Currently, the Department does not accept any application documentation except Seed to Sale applications and Transportation certifications. This means that an entity interested in applying for a Medical Marijuana cultivation, testing, manufacturing, or dispensary license will automatically be denied licensure.

On March 4 and 5th, 2020, the Department organized a mandatory "Medical Marijuana Facilities Welcome Meeting" for all facility licensees. Licensees were required to send representatives of the business to this Industry mandatory orientation. The orientation gave licensees an opportunity to:

- Meet the Department's Facility Licensing and Compliance Team;
- Learn program policies and procedures; and
- Network with other licensees.

In addition to getting oriented with the Department's team and regulations, Licensees were also provided with the opportunity to meet the other state agencies that will help enforce various facets of Missouri's Medical Marijuana program. This additional enforcement included representatives from the Department of Agriculture, Labor and Industrial Relations, Natural Resources, Public Safety, and Revenue.

As entities awarded licensure break ground on their operations, they should bear in mind that rule 19 CSR 30-95.040 (1)(D) explicitly states that "the issuance of a facility license or certification does not authorize the facility to begin cultivating, manufacturing, dispensing, testing, or transporting Medical Marijuana." The rule further clarifies that "A facility will be granted final

approval to operate upon passing a commencement inspection." Failure to comply with this rule and begin medical marijuana operations before the commencement inspection may result in license forfeiture.

Licensees that have been issued licensure but have yet to receive final approval by passing a commencement inspection within one (1) year will be subject to the Department's revocation.

Licensees must not work with any medical marijuana plants or processed medical marijuana until they have final approval from the Department to operate its licensed medical marijuana facility. Remember, failure to comply with any regulation may result in a license suspension or revocation.

REQUIREMENTS FOR LICENSURE

Applicants who received licensure from Missouri should take pride in the exemplary work on their submitted applications for licensing. Again, Missouri's program's participation was limited to a capped number of licenses per facility type, and there were more submissions for licensing than anticipated.

Entities that were successful in the application process were evaluated for whether the information provided at the time of application met or exceeded the minimum standards established in subsection 19 CSR 30-95.025 (4)(A).

This subsection required the following minimum information from applicants:

- The entity applying for licensure is authorized to operate a business in the State of Missouri.
- The entity applying for licensure is majority-owned by a resident of the State of Missouri.
    - Residency must be established for at least one year at the time of application.
- The entity is not under substantially common control as another entity.
- The physical location for the licensed medical marijuana facility sought on the application is not within one thousand (1000) feet of an already existing school, daycare, and worship place.
- The entity complies with all local government requirements, such as but not limited to specific zoning laws and conditions, and other rules, such as permissible hours of operation.
- The entity may not have any owner-member with a disqualifying felony offense.
    - The Department considers a disqualifying felony offense to be a "violation of, and conviction of or guilty plea to, state or federal law that is, or would have been, a felony under Missouri law, regardless of the sentence imposed." The Department allows for a few exceptions to disqualifying felony offenses. For example, if the individual was convicted of the medical use of marijuana or assisting a medical marijuana patient using recommended medical marijuana.

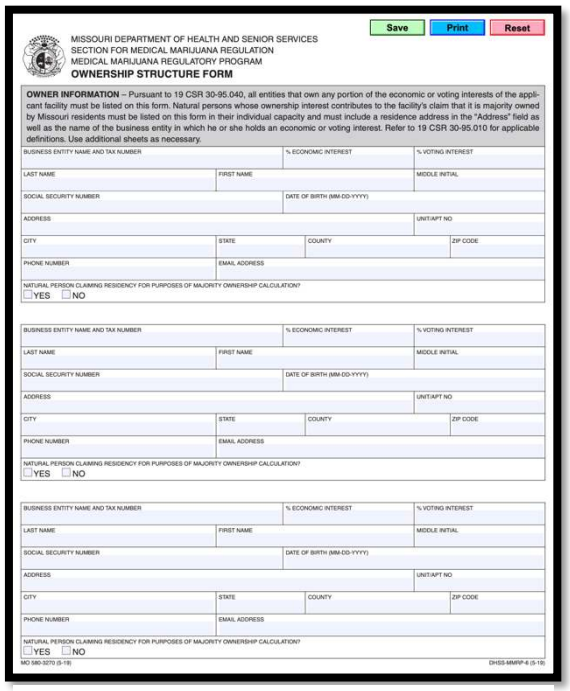
In addition to evaluating this provided information, the Department created a scoring rubric for assessing applicants. This assessment was used to generate a numerical value used to award licenses and certificates to the highest scorers' entities.

Applicants were awarded points based on additional criteria for licensure. The other evaluation criteria for application the following evaluation criteria:

- The character, integrity, background, qualifications, and relevant experience of the principal officers.
- An adequate business plan which encompasses the Departments' enforcement priorities.
- Site security plan.
- Experience in a legal cannabis market, if any.
- The applicant's ability to have a positive experience in their communities in which they are located.
- License type-specific requested information:
    - Testing facility applicants were evaluated on personnel with health care industry experience and laboratory experience testing marijuana, food, or drugs for toxins and potency.
    - Cultivation facility applicants were assessed on previous experiences in agriculture, horticulture, and health care.
    - Manufacturing facility applicants were evaluated on previous experiences in food and beverage manufacturing; and
    - Dispensary facility applicants were assessed on previous experiences in the health care industry, the sustainability of the proposed facility site, and the overall accessibility to the patients they plan to serve.

Tucked away deep within the regulations is subsection 19 CSR 30-95.040 (2), Application Requirements. This subsection expands upon the license application requirements previously discussed in subsection 19 CSR 30-95.025 (4)(A) and (B). These additional requirements include, but are not limited to, the following:

1. The name and address of the primary contact for the applicant's facility.
2. The legal name of the facility. This includes any fictitious business names and a good standing certificate from the Missouri Office of the Secretary of State.
3. A completed Ownership Structure Form. This form must include the following:
    a. Demonstrate the applicant entity is majority-owned by a Missouri Resident; and
    b. A written description or visual representation of the facility's ownership structure, including all entities listed on the Ownership Structure Form.
4. For each owner claiming Missouri State Residency, a statement must be provided which attests the owner has had Missouri State residency for at least a year. Proof of residency may be satisfied by one of the following forms of documentation:
    a. A copy of a valid Missouri driver's license, a Missouri Identification Card, a current Missouri motor vehicle registration, or a recent Missouri utility bill; or
    b. If the individuals claiming Missouri residency on the license application cannot provide one of the documents listed above, they may offer some other copy as proof of Missouri residency. However, individuals who provided supplementary forms of state residency are subject to approval or rejection at the Department's discretion.
5. A list of all facilities licensed or certified or applying for licensure or certification to operate a medical marijuana facility under common control and ownership. This exhaustive list must also include a written explanation of how each facility is under substantially common control.
6. Proposed address of the facility and the following substantiating documentation:
    a. A map of the surrounding area that shows compliance with the facility location.
    b. Documentation demonstrating the local government licensing and operational requirements as they differ from the Departments and a map, which shows compliance with the local government's regulatory requirements.
    c. A statement or attestation that the facility's proposed address is compliant with all the Department's facility location requirements.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MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES
SECTION FOR MEDICAL MARIJUANA REGULATION
MEDICAL MARIJUANA REGULATORY PROGRAM
OWNERSHIP STRUCTURE FORM

OWNER INFORMATION – Pursuant to 19 CSR 30-95.040, all entities that own any portion of the economic or voting interests of the applicant facility must be listed on this form. Natural persons whose ownership interest contributes to the facility's claim that it is majority owned by Missouri residents must be listed on this form in their individual capacity and must include a residence address in the "Address" field as well as the name of the business entity in which he or she holds an economic or voting interest. Refer to 19 CSR 30-95.010 for applicable definitions. Use additional sheets as necessary.

BUSINESS ENTITY NAME AND TAX NUMBER | % ECONOMIC INTEREST | % VOTING INTEREST
LAST NAME | FIRST NAME | MIDDLE INITIAL
SOCIAL SECURITY NUMBER | DATE OF BIRTH (MM-DD-YYYY)
ADDRESS | UNIT/APT NO
CITY | STATE | COUNTY | ZIP CODE
PHONE NUMBER | EMAIL ADDRESS
NATURAL PERSON CLAIMING RESIDENCY FOR PURPOSES OF MAJORITY OWNERSHIP CALCULATION?
☐ YES ☐ NO

(duplicate)

(duplicate)

MO 580-3270 (5-18) DHSS-MMRP-6 (5-18)

Image 6 - Entity Application

7. A description, schematic, floorplan, or blueprint of the facility.
8. For facilities in locally zoned areas, a statement or attestation of how the entity intends to operate the facility complies with zoning requirements.
9. A statement or attestation that no individual owner has a disqualifying felony offense.
10. A statement or attestation that all individual owners have submitted fingerprints within the past six (6 months) to the Missouri State Highway Patrol.
11. All required facility evaluation information; and
12. All applicable fees (or proof that the associated costs have been paid).

FEE SCHEDULE

Fee Type	New App. 7.1.2020 – 6.30.2021	Annual: 12.6.18 – 6.30.2020	Annual: 7.1.2020 – 6.30.2021	Renewal: 7.1.2020 – 6.30.2021
Change Request Fee	$2, 2,046.00	N/A	N/A	$2,046.00
Cultivation Fee	$10,230.00	$25,000.00	$25,575.00	$5,115.00
Dispensary Fee	$6,138.00	$10,000.00	$10,230.00	$3,069.00
Facility Agent	$76.73	N/A	N/A	$76.73
Laboratory Testing	$5,115.00	$5,000	$5,115.00	$5,115.00
Manufacturing Facility	$6,138.00	$10,000.00	$10,230.00	$3,069.00
Seed to Sale	$5,115.00	$5,000.00	$5,115.00	N/A
Transportation	$5,115.00	$5,000.00	$5,115.00	$5,115.00

The Department requires a two-part fee payment system for entities seeking licensure. Entities must submit a non-refundable application fee at the time the application is submitted for licensure. Suppose the Department awards an entity applicant licensure or certification. In that case, the entity has thirty (30) days from the date on which the Department notified them of their eligibility for licensure to accept and pay the associated license fee. Failure to pay licensing fees may result in the loss of the license temporarily or permanently.

Licenses are valid for three (3) years from the date issued; however, an annual fee must be paid to the Department to ensure the license remains valid and in good standing. The Application Fee for renewals must be provided every three years in full.

19 CSR 30-95.040 (1)(G) mandates that all licenses must be renewed with an updated "renewal" application and the appropriate license fee between two hundred and fifty (250) and one hundred and fifty (150) days of the license expiration date. Remember, entities must submit the required renewal fees associated with their license type(s) when submitting renewal applications.

ADDITIONAL LICENSING PROCEDURES

EMERGENCY RULE 19 CSR 30-95.028

On January 2, 2020, the Missouri Register published an emergency rule specifically to address additional licensure procedures to address the application and licensure process fallout.

"EMERGENCY STATEMENT: This emergency rule informs the public of what provisions are necessary for the efficient and effective implementation of Article XIV. Section 1 of the Missouri Constitution, which became effective on December 6, 2018, provides that the Department must approve or deny all applications for medical marijuana licenses/certificates within one hundred fifty (150) days of submission. It also provides that, when there are more applications than licenses/certificates available, the Department shall implement a numeric scoring system for ranking those applications and confirm each application meets minimum requirements. Finally, Article XIV dictates that the Department should issue a minimum number of licenses in each facility type. There is no direction in Article XIV to fill open licenses/certifications if they become available soon after an initial application/scoring period. This emergency rule fills the need to specify how the Department will address such a situation."

CONFIRMATION AND ACCEPTANCE

19 CSR 30-95.028 (1) requires the confirmation and acceptance of a license or certification within five (5) days of being awarded a license or certificate by the Department. Recipients are to notify the Department in writing, via electronic mail, or by phone that they have accepted or declined the facility license or certificate.

Failure to obtain a license within the five (5) day period will result in forfeiture of the awarded entity's license. The license or certificate will then be granted to the next applicant entity with the highest score. This process will be repeated until the Department has issued all licenses and certifications.

CONDITIONAL DENIALS

Entity applicants that satisfied the minimum requirements mandated by the Department in 19 CSR 30-95.040 (4)(A) but were denied licensure or certification because of the numerical grading rubric system are "conditionally denied" entities.

Entity applicants that are "conditionally denied" will remain so for a period of three hundred and sixty-five (365) days. During this period, applicants may remain eligible for licensure or certification that may become available due to another applicant's failure to confirm or accept licensure or certification. The Department will first issue the license or certificate to each specific

facility type's highest applicant entity and continue to offer unaccepted licenses to the next highest-ranking applicant until they are all accounted.

LICENSURE LIMITATIONS

The Department has placed licensure limitations on entities to create a more fair and diverse medical marijuana market for Missouri. 19 CSR 30-95.040 (3)(C) explicitly prohibits more than three (3) cultivation, three (3) manufacturing, and five (5) dispensary facility licenses from being issued to any entity under "substantially common control, ownership, or management."

Additionally, and for a good cause, the Department strictly prohibits testing facility operators from having common control in any cultivation, manufacturing, or dispensary operation.

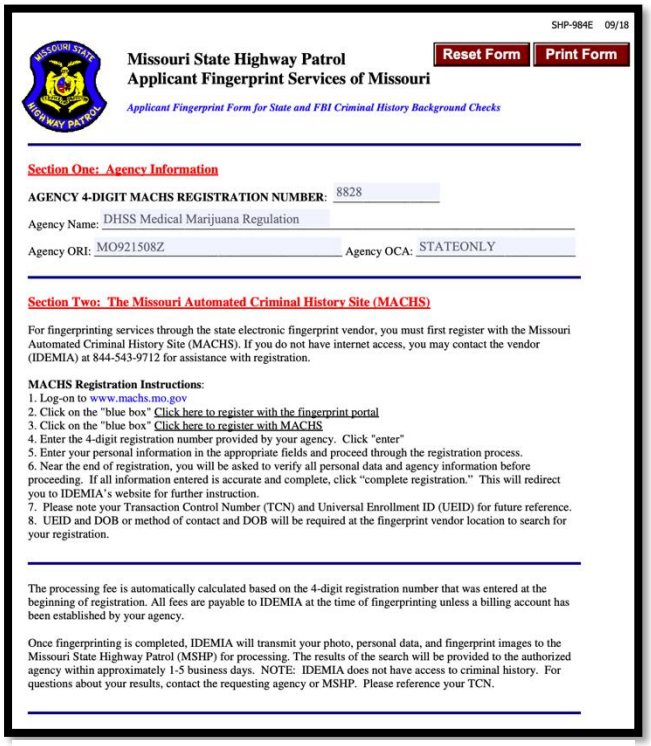
LICENSED FACILITIES

Remember, the issuance of a Department facility license or certification does not authorize the facility to begin commercial medical marijuana activities, such as cultivation, manufacturing, or dispensing of medical marijuana. These activities may only start once a facility has successfully passed its commencement inspection.

The Department requires that each cultivation, infused product manufacturing, or dispensary facility obtain its license for operation. Despite individual licensure, the Department does permit multiple licenses to be under the same facility roof. For example, an entity may have applied for and been awarded licensure at the same property address to conduct both Medical Marijuana Cultivation and Manufacturing operations. Once licensed, entities are required to visibly display their valid license or certification of operation within twenty (20) feet of the main entryway of the licensed facility.

FACILITY AGENT IDENTIFICATION CARDS

Facility Agent Identification Cards refer to a Department issued document, whether physically or digitally maintained, that authorizes an individual to have access to medical marijuana or a medical marijuana facility. Individuals refer to owners, officers, board members, managers, employees, and licensed facility contractors in this instance. This instance of "identification cards" does not apply to qualified medical marijuana patients or their primary caregivers who may also access medical marijuana through a licensed dispensaries sales area.



SHP-984E 09/18

Reset Form Print Form

Missouri State Highway Patrol
Applicant Fingerprint Services of Missouri

Applicant Fingerprint Form for State and FBI Criminal History Background Checks

Section One: Agency Information

AGENCY 4-DIGIT MACHS REGISTRATION NUMBER: 8828

Agency Name: DHSS Medical Marijuana Regulation

Agency ORI: MO921508Z Agency OCA: STATEONLY

Section Two: The Missouri Automated Criminal History Site (MACHS)

For fingerprinting services through the state electronic fingerprint vendor, you must first register with the Missouri Automated Criminal History Site (MACHS). If you do not have internet access, you may contact the vendor (IDEMIA) at 844-543-9712 for assistance with registration.

MACHS Registration Instructions:
1. Log-on to www.machs.mo.gov
2. Click on the "blue box" Click here to register with the fingerprint portal
3. Click on the "blue box" Click here to register with MACHS
4. Enter the 4-digit registration number provided by your agency. Click "enter"
5. Enter your personal information in the appropriate fields and proceed through the registration process.
6. Near the end of registration, you will be asked to verify all personal data and agency information before proceeding. If all information entered is accurate and complete, click "complete registration." This will redirect you to IDEMIA's website for further instruction.
7. Please note your Transaction Control Number (TCN) and Universal Enrollment ID (UEID) for future reference.
8. UEID and DOB or method of contact and DOB will be required at the fingerprint vendor location to search for your registration.

The processing fee is automatically calculated based on the 4-digit registration number that was entered at the beginning of registration. All fees are payable to IDEMIA at the time of fingerprinting unless a billing account has been established by your agency.

Once fingerprinting is completed, IDEMIA will transmit your photo, personal data, and fingerprint images to the Missouri State Highway Patrol (MSHP) for processing. The results of the search will be provided to the authorized agency within approximately 1-5 business days. NOTE: IDEMIA does not have access to criminal history. For questions about your results, contact the requesting agency or MSHP. Please reference your TCN.

Image 7 – MSHP Finger-printing Application

Individuals working for an authorized and licensed medical marijuana facility must submit for their Facility Agent Identification Cards once the Commencement Inspection with the Department has been scheduled. Per 19 CSR 30.96.040 (3)(E), "individuals associated with an entity at the time is licensed or certified, any work they are performing for that entity may continue, but the application for an agent identification card must be made within thirty (30) days of a license or certification being granted.

New hires who fall outside of the timeline for commencement inspections and licensure may only apply for a Facility Agent Identification Card after receiving and accepting employment

from a licensed or certified entity. The individual may not begin working at the entities facility until they have received their Facility Agent Identification Card.

Facility Agent Identification Cards are valid for three (3) years once issued by the Department. However, if an individual is arrested for a disqualifying felony offense, the Facility Agent Identification Cardholder must notify the Department within thirty (30) days of the arrest. Disqualifying felony offenses may result in the individual's Facility Agent Identification Card being suspended or revoked.

Individuals must always maintain their Facility Agent Identification Cards and their government-issued identification on their person while working on the Licensed Premises.

Please be aware, the Department requires contractors, whether a person or a company, performing work that includes access to medical marijuana, related equipment, or supplies, for a period greater than 14 days to apply for a Facility Agent Identification Card per 19 CSR 30-95.040 (3)(E)

FACILITY AGENT IDENTIFICATION CARD APPLICATION REQUIREMENTS

Regardless of job title or the position within the organization, all individuals applying for a Facility Identification need to provide all the following required information to qualify for a Facility Agent Identification Card:

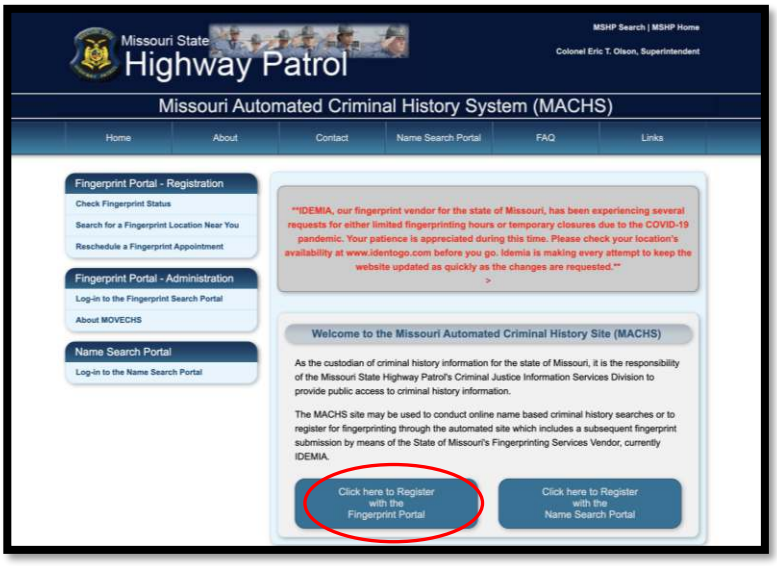
1. The name, address, and social security number of the applicant.
2. A statement confirming that the applicant has submitted fingerprints within the last six (6) months for a state criminal background check through the Missouri Highway Patrol's MACHS portal unless that applicant has already submitted fingerprints a part of the Facility Application process.
3. A copy of a written offer of employment from a Missouri licensed facility.
4. A valid government-issued identification.
5. A clear, digital, color photo which shows the applicants entirely unobstructed face; and
6. A non-refundable fee of $76.73 (Beginning on 7.1.2020 for new applicants).

FINGERPRINTING REQUIREMENTS

Individuals applying for their Facility Agent Identification Card must utilize the Missouri Automated Criminal History Site (MACHS) to request fingerprinting services.

Individuals will first have to register for MACHS by following these instructions:

1. Go to www.machs.mo.gov.
2. Click on the blue box, which reads "Click here to register with the fingerprint portal."



3. Click on the blue box, which reads, "Click here to register with MACHS."

4. Enter the 4-digit registration number provided by your agency. Double-check the number is accurate and click "Enter." The 4-digit number is "8828."

5. Enter the appropriate information in the correct fields and proceed through each step of the registration process.

6. Towards the end of the registration process, individuals will be asked to verify all their data and agency information before proceeding to the fingerprinting process's final steps.
    a. Once all of the provided information has been confirmed as accurate by the individual applying for a Facility Agent Identification Card, proceed to click "Complete registration." Once this has been clicked, the web page will redirect to IDEMIA's website for additional instructions.
7. Once IDEMIA's web page has loaded, individuals must note their Transaction Control Number (TCN) and Universal Enrollment ID (UEID) for future reference.
8. Enter your UEID and Date of Birth OR a method of contact and Date of Birth. This is required information so that the fingerprint vendor can quickly look you up in the system.

Upon completing the fingerprint process, IDEMIA will share your provided photo, personal data, and fingerprints to the Missouri State Highway Patrol (MSHP) for final processing. Once received by the Department, it may take the Department up to fourteen (14) days to process the Facility Agent Identification Card application. -

The Department has placed an enormous priority to ensure that all Medical Marijuana lawfully grown under Missouri's medical marijuana program remains within the regulated system and does not find its way into black or grey markets. The focus on preventing diversion, theft, or overall loss of any regulated medical marijuana inventory is reflected in the regulatory requirements for inventory controls and security standards that all licensees must comply with.

Rule19 CSR 30-95.040 (4)(H) establishes the need for licensees to take proactive security measurements for all cultivation, infused product manufacturing, and dispensary facility operations. The requirements specified in 19 CSR 30-95.040 (4)(H) are only the Departments minimum requirements, and entities are always expected to maintain these minimum operating standards while actively licensed by the Department.

LIMITED ACCESS AREAS

Before diving headfirst into the various minimal security, surveillance, and alarm standards required for all cultivators, manufacturers, and dispensary facility operators, it is first essential to understand the undefined term "Limited Access Area." This term is used several times in the Department's regulations; however, it does not carry a formal definition by the Department.

"Limited Access Area(s)" are mentioned at least nine (9) separate times in the Departments text of Regulations. From these instances, one can infer that Limited Access Areas are areas where medical marijuana is stored, cultivated, manufactured, processed, prepared for transport, displayed for sale, sold, or otherwise physically exists.

Figure 1 - Sample Facility Diagram

Limited Access Areas, per the Department, must have controlled access points, have equipment installed, and designed to prevent unauthorized entry, diversion, or inversion of medical marijuana. Licensees may achieve compliance with this regulatory requirement by installing a device or a series of devices designed to perform video, surveillance, and security alarm system functions.

Limited Access Area points of entry are required, per Rule 19 CSR 30-040.95 (4)(H)(1)(D), to be controlled by a supported system that captures all individuals as they access the Limited Access Area. Licensees can ensure compliance with this requirement by installing card readers, utilizing

Biometric identification systems issuing everyone their access code, which are recorded and stored in the database. This access information must be maintained for a minimum of one (1) year.

Limited Access Area doors that border the licensed premises' perimeter must have electronic, commercial locks installed. These locks, per regulation, must be capable of locking remotely or automatically in the event of a power outage.

Limited Access Areas must be clearly defined on the license premises diagram. In addition to being identified in this document, signage should be placed within the facility to indicate when individuals are transitioning from general-use areas of the facility to limited access areas.

Facilities with windows located inside a limited access area are required by the Department to ensure that those windows cannot be opened from either side and designed to prevent intrusion. Examples include sealing the windows, placing bars over the windows, or using alarm technologies such as a glass break detection device.

VISITORS

Individuals who are not employees of the entity that enter any limited access area on the licensed premises are required to be qualified as visitors and must always be escorted while within the Limited-access Area.

Licensees are required to maintain a record that substantiates all authorized individuals, who are not employees of the licensee, who enter the limited access area. Rule 19 CSR 30-95.040 (4)(H)(2)(A) does not require much information for visitors to enter a limited access area. For best practice, licensees should collect and maintain the following information of all visitors who enter limited-access areas:

1. The date of entry;
2. The time of entry and exit;
3. The full name of the individual (as it appears on their government-issued ID);
4. The company that the individual works for; and
5. The reason for the visitor's entry into the Limited-access Area.

Additionally, facilities should design visitor badges to be given to escorted visitors in the limited access area. Visitor badges allow employees to quickly identify visitors on the licensed premises and help collective enforcement of the limited-access area rules. Regulations do not permit more than five (5) visitors to be escorted by one (1) facility agent.

VIDEO SURVEILLANCE SYSTEM REQUIREMENTS

Rule 19 CSR 30-040.95 (4)(H)(1)(C) of the Departments text of Regulations stipulates the following minimum video surveillance system requirements for all Licensees:

1. At least one (1) call up monitor for video and surveillance playback.
    a. Call up monitors must be at least nineteen (19) inches or more.
2. A printer capable of immediately producing a clear still photo image from any recorded video.
3. Video camera recording resolution must be at least 1920 x 1080 and record at least fifteen (15) Frames Per Second (FPS).

Image 8 - Video Surveillance Cameras

    a. Cameras must be placed and situated to capture individuals' identity within observable space on the licensed premises.
    b. Video surveillance feeds must be accessible remotely to agents of the Department or law enforcement when requested.
4. Video Camera Placement Requirements:
    a. All entrances and exits of the licensed premises, including windows, and all entrances and exits from Limited Access Areas.
    b. The perimeter and exterior area of the licensed facility premises.
        i. This includes observable visibility of at least twenty (20) feet of space around licensed outdoor cultivation facilities.
    c. Each individual point-of-sales area.
    d. All vaults or safes on the licensed premises.
    e. All areas where Medical Marijuana is cultivated, cured, trimmed, processed, or rendered for waste are required to have at least two camera angles covering the site where the activities take place.
5. Video surveillance backup of at least sixty (60) days.
    a. Storage can be digital or physical so long as video surveillance footage recorded within the previous sixty (60) days can be recalled upon demand.
    b. Licensees must make copies of stored video surveillance records for security incident purposes or if requested by the Department or law enforcement personnel.
6. Video surveillance systems must be equipped with a method which notifies licensees in the event of a video surveillance system failure or disruption.
7. In the event of a system power failure or disruption, the video surveillance system must be equipped with a battery backup system that can support video recording services for a minimum of sixty (60) minutes.

All video cameras used to satisfy video surveillance system requirements must ensure the following conditions are met to remain compliant with Department regulations:

1. All video camera images must include an accurate time and date stamp. Time and date stamps must not obstruct the recording or still images produced from video recordings.
2. All video cameras must be installed by a commercial video surveillance system provider and be installed in a manner that prevents the video camera from being easily tampered with, obstructed, disabled, or otherwise manipulated in any capacity.

ALARM SYSTEM REQUIREMENTS

Security Alarm Systems protect your company's assets, such as products, cash, equipment, and personnel's overall health and safety. Security Alarm System Components may include:

- Hard-wired systems or wireless systems are interconnected with a radio frequency method such as cellular or private radio signals that emit or transmit a remote or local audible, visual, or electronic signal.
- Motion detectors, pressure switches, duress alarms – These are examples of silent system signals generated by the entry of a designated code into the arming station to indicate that the user is disarming under duress.
- Panic alarms – This is an audible system signal to indicate an emergency).
- Hold-up alarms - A silent system signal to indicate that a robbery is in progress.

At a minimum, alarm systems are required, per 19 CSR 30-040.95 (4)(H)(1)(A), to detect unauthorized intrusion. The Department expands upon this by further requiring Licensees comply with the following alarm system requirements:

1. Alarms provide a method that can immediately and automatically notify and alert local law enforcement agencies of any authorized security breach at the licensed facility.
2. Licenses are required to install manual, silent alarms at each point-of-sale, reception area, vault, and electronic monitoring station.
    a. These alarms must alert and summon local law enforcement in the event of an unauthorized entry or breach of security.

VIDEO SURVEILLANCE, SECURITY, AND ALARM POLICIES AND PROCEDURES

Rule 19 CSR 30-040.95 (4)(H)(2) establishes policy and procedural requirements that all licensees be required to comply with to ensure the overall success of the implemented video surveillance, security, and alarm systems. These policy and procedure requirements are as follows:

1. Policies and procedures must be established as Standard Operating Procedures that restrict access to the licensed facility areas that contain any form of medical marijuana. These areas are required to be limited to only authorized personnel. This includes the development and implementation of a visitor's policy.
2. Policies and procedures must be established to identify authorized persons in the limited access areas containing medical marijuana inventories.

3. Policies and procedures that identify the individuals responsible for all medical marijuana's inventory control operations of all medical marijuana.
4. Policies and procedures must be established, limiting the amount of money readily available within the retail sales area. This includes a notification that informs the public that there is limited cash on hand.
5. Policies and procedures must be developed, which encompass the electronic monitoring of the licensed premises.
6. Policies and procedures for the use the commercially installed alarm systems.
7. Policies and procedures for communication with local law enforcement, which is to include sharing information related to hired security personnel employed at the licensed premises.

REQUIRED MAINTENANCE, NOTIFICATIONS, AND REPORTING

Rule 19 CSR 30-95.040 (4)(H)(6) explicitly states that licensees "shall make a reasonable effort to repair any malfunctioning security equipment within seventy-two (72) hours after the malfunction discovery." Upon discovering any malfunctioning security equipment, Licensees are required to make a report to the Department, notifying them of the malfunctioning equipment and procedures for addressing the non-operational equipment. Licensees must submit this report to the Department within twenty-four (24) hours of the discovery of the malfunctioning equipment.

In the instance of malfunctioning video surveillance equipment, such as a video camera, Licensees must immediately provide alternative video camera coverage or provide additional security measures to compensate for the malfunctioning video surveillance equipment. If other security measures are necessary, such as using security personnel to provide facility surveillance duties, entities must immediately notify the Department of the proposed alternative security measures. The Department then has the discretion to approve or deny the proposed alternative security measures.

Licensees are responsible for also documenting each instance of equipment failure in a log, per Rule 19 CSR 30-95.040 (4)(H)(6)(B). These logs should account for the following:

1. The date, time, and nature of each instance of equipment failure.
2. The efforts that are taken to repair and correct the equipment failure and the corresponding dates for each step are made.
3. Documentation of any alternative security measures approved by the Department.
4. The initial report filed with the Department upon discovery of the equipment failure.
5. For best practice, any receipts, bills of repair, and invoices from the commercial service provider.

The entity must maintain all logs for at least one (1) year.

SECURITY MANAGER

Regulations require that each facility employ a designated Security Manager responsible for the licensed facility's overall security operations. Security Managers are typically former law

enforcement officers, or servicemen or women hired to provide security service. Regardless of an individual Security Manager's previous experiences, all Security Managers are required to provide the same types of services and job duties per Rule 19 CSR 30-95.040 (4)(H)(7). These required functions per the Department's regulations are as follows:

1. Conduct semi-annual audits of security policies, procedures, and security measures. Audits and remediation reports produced from each audit should be used to ensure compliance with required security regulations and improve internal policies and procedures.
2. Annual Employee Training and within one (1) week of hire:
    a. Security Measures.
    b. Emergency response.
    c. Theft prevention.
3. Evaluating the Credentials of:
    a. Contractors; and
    b. Third-party security and surveillance system providers.

Regardless of the Security Managers previous occupational experience, all Security Managers must comply with the following regulatory requirements to qualify as a facilities Security Manager:

1. Training in theft prevention or a related topic.
2. Training in emergency response or a related topic.
3. Training in the appropriate use of force or a related topic that addresses when the use of force is necessary and unnecessary.
4. Training the protection of a crime scene or a related subject.
5. Training in the control of access to protected areas of a facility or a related topic.
6. Have received no less than eight (8) hours of training at the licensed premises in providing security services; and
7. Have received no less than eight (8) hours of classroom training in providing security services.

MEDICAL MARIJUANA WASTE DISPOSAL

Non-hazardous Medical Marijuana Waste, also known as "Green Waste," must be appropriately processed and documented before it can be adequately and compliantly

disposed. For best practice, store all green waste independently of all other waste products produced at the licensed facility and maintain a waste log to track all non-hazardous medical marijuana waste inventories.

Waste Logs should include the following information:

- The name of the medical marijuana identified for destruction;
- The type of medical marijuana being disposed of;
- Any RFID tag, Harvest, or Batch Numbers;
- The weight or number of units of medical marijuana identified for destruction;
- The reason for destruction; and
- Initials and Agent Facility Identification Card Number.

The information provided in the medical marijuana waste log can be used to update the seed-to-sale system and provide additional evidence for inventory records.

DISPOSING OF MEDICAL MARIJUANA

All non-hazardous medical marijuana waste should be stored in a designated and secured waste receptacle within the defined Limited Access Area. All inventories of medical marijuana identified for disposal already packaged in its final, ready-for-sale form will need to be separated from its packaging before it can be appropriately disposed of. Before medical marijuana can be compliantly disposed of, it first must undergo a process that first renders it unusable and then unrecognizable.

The Department, in Rule 19 CSR 30-95.040 (4)(E)(5), requires that all non-hazardous medical marijuana waste be rendered unrecognizable through a grinding process and then rendered unusable through a process which combines the ground-up medical marijuana waste with an approved material to create a 50/50 mixture of unusable and unrecognizable waste. The Department permits combinations of medical marijuana waste to be rendered with either compostable agents or non-compostable agents.

Compostable Mixed Waste	**Non-compostable Mixed Waste**
"Medical marijuana waste to be disposed of compost feedstock or in another organic waste method (for example, anaerobic digester)."	"Medical marijuana waste to be disposed of in a landfill or another disposal method (for example, an incinerator)."
Permissible waste materials: • Food waste. • Yard waste; or • Vegetable-based grease or oils.	Permissible waste materials: • Paper waste. • Cardboard waste. • Plastic waste; or • Soil.

Once non-hazardous medical marijuana waste has been rendered unusable and unrecognizable using one of the approved compostable or non-compostable materials above, the resulting mixture may now be disposed of.

Acceptable permitted solid waste facilities	
Compostable Mixed Waste	Non-compostable Mixed Waste
• Compost. • Anaerobic digestor, or • Other facilities with approval of the local health department.	• Landfill. • Incinerator, or • Other facilities with approval of the local health department.

HAZARDOUS WASTE DISPOSAL

To properly dispose of hazardous medical marijuana waste, one must first understand what hazardous waste is. To fully understand what "hazardous waste" is, we must turn to a different title and section of the code of state regulations entirely; Title 40 of the Code of State Regulations, Section 261.11: Hazardous Waste Determination and Recordkeeping.

This section requires that "a person who generates a solid waste, as defined in 40 CFR 261.2, must make an accurate determination as to whether that waste is a hazardous waste to ensure wastes are properly managed according to applicable RCRA regulations." This means that the burden to determine what is and what is not hazardous waste is on the operator.

With a defined understanding of "hazardous waste," it is safe to discuss how to determine "hazardous waste" and document it per 40 CFR 262.11 properly.

DETERMINING HAZARDOUS WASTE

There is a formal process for deciding what is and what is not hazardous waste, and all operators are required to determine the hazardous waste generated at the facility correctly. This burden is placed on the facility operators. Failure to accurately determine hazardous waste could result in administrative action by the Department of environmental health agencies at the state and federal levels. Entities may use the following criteria to determine if they produce hazardous wastes as a by-product of operating:

1. All hazardous waste determinations for each solid waste produced by the medical marijuana facility must be made for each at the point of waste generation.
2. The medical marijuana facility operator must then determine whether the produced solid waste is excluded per regulation 40 CFR 261.4.
3. Solid waste that is not excluded per 40 CFR 261.4 must then be compared to the destruction described in subpart D of regulation 40 CFR 261.4. This burden is again placed on the facility operator.
4. Operators must then also determine any hazardous characteristics of the waste.
5. If the waste is determined to be hazardous by the operator after following all these steps, they must comply with additional requirements outlined in 261, 264, 265, 266, 267, 268, and 273.

HAZARDOUS WASTE RECORDKEEPING

Recordkeeping is required for both medical marijuana green waste and any hazardous waste generated by the medical marijuana facility. The recordkeeping requirements for hazardous waste are not a Department-specific requirement, but the Department requires facility operators to comply with all applicable hazardous waste management standards.

Per 40 CFR 262.11 (f), small and large quantities of hazardous waste generators must maintain adequate records about hazardous waste disposal. Documents are required to support the medical marijuana facility operators' determination to identify dangerous wastes produced at the facility and account for all disposed of medical marijuana waste.

All hazardous waste records must substantiate the operator's knowledge of the waste produced and support the determination. These records must include, at a minimum, the following:

1. The results of any tests or other analyses performed
2. Records documenting the tests or other analysis performed.
3. The Records consulted that led to the determination of the waste as being hazardous or non-hazardous. These records must include the process by which the waste is generated, the composition of the waste, and the waste properties.
4. Records must also explain the basis for the facility operators' determination.

Per 40 CFR 262.11 (f), all records must be "maintained for at least three (3) years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal." Operators need to remember that the Department requires all medical marijuana waste records to be maintained for five (5) years.

Failure to comply with hazardous waste requirements may result in the Department's action and the authorized agencies that oversee waste management at the local, State, and federal level. This includes failure to maintain records and dispose of waste properly.

ADVERTISEMENTS AND SIGNAGE

There are very few paragraphs dedicated to advertisement and signage placement in the Department's text of regulations. Rule 19 CSR 30-95.040 (4)(M) covers the limited regulatory requirements for advertising and signage placement.

The shortlist of regulations for signage and advertisements is as follows:

1. Facilities may not display marijuana, marijuana paraphernalia, or advertisements for marijuana paraphernalia items in a visible manner to the public.
2. Outdoor signage (and any indoor signage that may be visible from the outside) must comply with all local ordinances which govern signage and advertising regulations. These advertisements may not:
    a. Display any text other than the facilities business name (or trade name), the business address, phone number, and website; and
    b. May not use any images, graphics, or other visual representations of marijuana plants, products, or paraphernalia. This regulation even includes the use of smoke to advertise products.

Image 9 - Blank Billboard

RECORD-KEEPING REQUIREMENTS

The Department has established various books and record-keeping requirements. All books and records must be retained by the entity and must account for and substantiate the licensed facility's day-to-day business activities. The Department has emphasized the importance of adequate and thoroughly maintained books and records. The Department places the most emphasis on inventory management and tracking documents.

Licensed entities need to get in the habit early to retain all documentation related to the facility operation. Records must be kept in a manner that makes them accessible upon request by a representative of the Department. All available records should be legible and be stored in a secured capacity that protects the documents from theft or environmental damages such as moisture, hazardous waste, or fire.

As of this time, the Department has established the following books and records requirements:

Image 10 - Filing Cabinet

1. Medical Marijuana Waste Records: 5 Years.
    a. Per Rule 19 CSR 30-95.040 (4)(E)(1).
2. Seed-to-Sale Record-Keeping Requirements: 5 Years.
    a. Daily inventory at the beginning of the day.
    b. Harvests.
    c. Acquisitions.
    d. Sales.
    e. Disbursements.
    f. Remediations.
    g. Disposals.
    h. Transfers.
    i. Daily inventory at the end of the day.
    j. All other necessary data for adequate inventory controls.
        i. Per Rule Per Rule 19, CSR 30-95.040 (4)(G)(3).
3. Quarterly physical inventory counts (Manufacturing Facilities only): 5 Years
    a. Per Rule 19 CSR 30-95.040 (4)(G)(4)(C) and (4)(G)(7).
4. Limited Access Area information: 1 Year or 5 Years for Best Practice.
    a. Per Rule 19 CSR 30-95.040 (4)(H)(D).
5. Application of Pesticides, Herbicides, Fertilizers, and other Agricultural Chemicals (Cultivation Facilities Only): 5 Years.
    a. Per 19 CSR 30-95.050 (4)(B)
6. Testing and Sampling Records (Testing Facilities only): 5 Years.
    a. Per 19 CSR 30-95.070 (2)(G).

Failure to comply with the Departments' books and records requirements may result in administrative action being taken against the violating entity.

QUALITY CONTROL AND QUALITY ASSURANCE

In addition to prioritizing inventory management and controls, the Department also prioritizes all medical marijuana patients and employees of entities' health and safety. Preventing adverse public health events due to contaminated medical marijuana in the supply chain is just one of the many of the Department's enforcement areas. After all, they are the Department of *Health* and Senior Services. In keeping with the spirit of safe operations, the Department has established Rule 40 CSR 19 30-95.040 (4)(F), which requires compliance from all facility operators, regardless of license type.

According to this regulation, entities must develop and implement procedures that ensure that all medical marijuana remains free of contaminants regardless of its form. To ensure compliance with this requirement, entities must implement robust Standard Operating Procedures, provide adequate training procedures, and secure, through a validation process, that the policies and procedures established produce desirable results in mitigating contaminants.

Each facility type is unique and presents its challenges when implementing quality control and assurance processes and procedures. Quality control and assurance are not just implemented and achieved with good policies, procedures, and employee training. Adequate quality control and security require that facilities be designed in such a manner to mitigate cross-contamination and be easily cleaned and sanitized. The equipment, utensils, and all the supplies used by entities to cultivate, store, manufacture, or otherwise touch marijuana, regardless of the form, must be made of adequate material that can be adequately cleaned to prevent microbial growth contaminants.

Different license types will have additional quality control and assurance procedures. For example, cultivators must be mindful of how and where they apply pesticides; pesticide drift is a genuine and problematic issue that results in the contamination of sensitive plants, fish, wildlife, and human populations. Another example would be that infused product manufacturers producing edibles must ensure that they are trained in and follow all state and federal food safety standards.

Facility operators should always strive to achieve the industry-wide best practice recommendations for operation. The Department, however, only requires that operators develop policies and procedures which, at a minimum, cover the following:

1. Adequate operational process flow for all active areas where medical marijuana is handled. This includes the receipt and storage of all medical marijuana.
2. Have established employee health and hygiene standards.
3. Facility Design
    a. Design and construct the facility using building materials (walls, floors, ceilings, etc.), easily cleaned and sanitized.

b. Have established ranges for temperature and humidity and built-in mechanical controls to "dial-in" these desired ranges.
c. Controls for monitoring the environment.
d. Routine and standardized cleaning and sanitizing procedures for rooms and equipment.
e. Routine maintenance requirements for all equipment used for the control of sanitized environments.
f. "Air Scrubbers" for cultivation and manufacturing facilities.

INVENTORY MANAGEMENT AND SEED-TO-SALE TRACKING REQUIREMENTS

Rule 19 CSR 30-95.040 (4)(G) establishes the requirements for all facility types to develop and implement policies and procedures that account for adequate control of medical marijuana inventory. Track and Trace and Seed-to-Sale tracking have been a regulatory component and requirement implemented in every state with regulated medical or adult-use marijuana laws. Missouri is no different.

TRACK AND TRACE AND SEED TO SALE

Before continuing to fulling understanding the inventory management requirements of Missouri's Medical Marijuana Program, it is essential first to have a comprehensive understanding of the nuisances of the terms "track and trace" and "seed to sale."

TRACK AND TRACE

The statewide track and trace refers to "the system the department uses to track medical marijuana from either the seed or immature plant stage until the medical marijuana is sold to a qualifying patient or primary caregiver to ensure that all medical marijuana sold in Missouri was cultivated or manufactured in Missouri, that all medical marijuana cultivated or manufactured in Missouri is sold only by dispensaries and only to individuals in possession of a valid qualifying patient or primary caregiver is only purchasing the amount of medical marijuana he or she is approved to purchase at any given time."

In the State of Missouri, the Marijuana Enforcement Tracking Reporting and Compliance (METRC) platform was awarded the contract to act as the statewide track and trace system.

SEED-TO-SALE

The seed-to-sale tracking system refers to "a software system designed to perform functions necessary to fulfill a licensed or certified facility's responsibilities in tracking medical marijuana from either the seed or immature plant stage until the medical marijuana is sold to a qualifying patient or primary caregiver."

A seed-to-sale tracking system is third-party inventory management and point of sales system platform with a certificate of approval to function with the statewide track and trace system, METRC. The Department requires that each facility utilizes a certified seed-to-sale tracking system to satisfy the "seed to sale" tracking requirement, per Rule 19 CSR 30-95.040 (4)(G)(3). Rule 19 CSR 30-95.090, Seed-to-Sale Tracking, further bolsters seed-to-sale tracking system service providers' requirements and how facility operators must comply with the Department's seed-to-sale requirements.

GENERAL INVENTORY MANAGEMENT REQUIREMENTS

Rule 19 CSR 30-95.040 (4)(G) established the initial requirements for entities to develop standard operating procedures to control all medical marijuana inventories. The Department's condition

to utilize METRC highlights a facility's need to ensure that its inventory control processes and procedures are dialed in, and comprehensive enough to provide all Department inventory requirements are adhered to.

INVENTORY AND SEED-TO-SALE MANAGER

Regardless of the facility type, each facility is required to identify in writing a facility agent responsible for overseeing the integrity of the facility's medical marijuana inventory. This individual is the primary employee accountable for the physical and digital inventories of all medical marijuana. This individual is also responsible for ensuring that all facility inventory management policies and procedures are implemented to conform to the Department's seed-to-sale tracking requirements.

APPROVED SCALES

One of these individuals' duties will be ensuring that the facility only uses valid and approved scales for measuring all medical marijuana. The Department specifically requires that all medical marijuana weighed be weighed using a scale supported by the National Type Evaluation Program. The National Type Evaluation Program, or NTEP, requires scale manufacturers to submit weighing devices to be evaluated to determine whether or not the scale meets the "uncertainties which are related to tolerances associated with the intended final use in the marketplace."

Image 11 – Scale Used to Weigh Medical Marijuana

All NTEP scales used at any facility, regardless of the facility type, must be capable of weighing and measuring all medical marijuana accurately and consistently. As a best practice measure, entities should possess a set of scale weights to determine the accuracy of the scales used by the operation. If the scales fail to gauge the weight of the known scale weight correctly, the facility should have a policy to take the scale "off-line" until a certified technician can service it. Entities are required, per regulation, to service and recalibrate scales annually.

THE SEED-TO-SALE SYSTEM

The Department requires that all medical marijuana supply-chain entities utilize a database to track all medical marijuana inventories from "seed-to-sale." As mentioned before, seed-to-sale tracking is a requirement that is universal in every legal medical or adult-use market in the United States.

The Department requires that all entities track all inventories of medical marijuana from either seed or immature plant until it has either been destroyed or sold to a valid medical marijuana

patient or their caregiver – literally "seed to sale!" The seed-to-sale requirement means that entities, and their designated employee(s) responsible for overseeing the integrity of the database, must ensure that "each day's beginning inventory, harvests, acquisitions, sales, disbursements, remediations, disposals, transfers, ending inventory, and any other data necessary for inventory controls records" be entered into the statewide seed-to-sale system.

MANUFACTURING INVENTORY MANAGEMENT REQUIREMENTS

Infused Products Manufacturers are responsible for a few additional seed-to-sale requirements per rule 19 CSR 30-95.040 (4)(G)(4.). These other rules are specific to manufacturing facilities because of their nature and how marijuana can quickly go missing during manufacturing processes. Remember that the Department's priority is to ensure that all regulated medical marijuana remains within the established system and does not find its way to illicit markets.

Manufacturers must ensure the following requirements are part of facilities standard operating procedures:

- Establish and maintain a perpetual inventory tracking system capable of tracking the flow of materials throughout the manufacturing process.
- Establish procedures that can reconcile the raw materials used per finished production batch.
    - Significant variances must be documented and reported to the Department within 24 hours.
- Facility agents who are not directly involved with the manufacturing process must perform quarterly physical inventory counts.
    - Significant variances must be documented and reported to the Department within 24 hours.

DISPENSARY INVENTORY MANAGEMENT REQUIREMENTS

Medical marijuana dispensary facility operators are required, by regulation, to account for all medical marijuana that is transferred to a valid medical marijuana patient or their qualified caregiver. All transfers of medical marijuana to patients or their caregivers must be adequately documented using the seed-to-sale system. Entities are responsible for ensuring that all amounts of medical marijuana are accounted for in the seed-to-sale system using the appropriate unit of measurement for each category of medical marijuana,

All dried, unprocessed medical marijuana must be recorded in either grams or ounces. All medical marijuana concentrates must be recorded in grams, and all medical marijuana-infused products must be recorded in milligrams of THC. Failure to comply with and adequately track these transfers may result in the Department's administrative action against the violating entity.

REDUCTIONS IN INVENTORY

All medical marijuana facility operators are required to have policies and procedures in place for how to document and report reductions in medical marijuana inventories properly. Upon

discovering any reduction of medical marijuana inventories, operators must document the reduction occurred.

Operators should have procedures for investigating all reductions in inventory. Facility agents conducting investigations into inventory reductions need to determine if the reduction was caused by a natural part of the operation or because of criminal activity.

Suppose a facility agent is responsible for the reduction in inventory through theft or diversion. In that case, the entity must notify the Department within twenty-four (24) hours of the discovery of the criminal activity. This report must include a description of the crime and have the name of the suspected employee(s) involved with the inventory reduction.

INVENTORY RECORDS

Remember, all related to the inventory management of medical marijuana or the seed-to-sale system must be adequately maintained for at least five (5) years.

INACCESSIBLE SEED-TO-SALE SYSTEM

Because we live in an unpredictable world and because nothing is a guarantee, facility operators and their facility agents need to be prepared for instances where access to the seed-to-sale system may be interrupted or lost entirely. Thankfully, the Department had the foresight to realize that today's technology has its limitations and understands that due to many reasons, the seed-to-sale system may not always be accessible, but that should not stop the operator from conducting business.

There are a few reasons why, unexpectedly, an operator may lose access to the seed-to-sale system. The seed-to-sale system server may not be available, or the facilities internet provider may be experiencing an outage. Whatever the reason, facility operators and their employees need to be trained for such an occurrence and know how to document all inventory-related activities to be retroactively inputted into the seed-to-sale system.

When access to the seed-to-sale system is lost, facility operators may continue to conduct most commercial activities generally for up to five (5) hours. Suppose the loss of access to the seed-to-sale system lasts longer than the permissible five (5) hours. In that case, facility operators are required to cease all operations where inventory tracking is needed. During the five (5) hour period, the Department prohibits the sale or transfer of medical marijuana during these outage periods. No transfers mean that operators must keep all medical marijuana inventories in-house and cannot transfer any inventory to another licensed operator or medical marijuana patient. If a delivery arrives when there is an outage, the delivery must be completed.

For all other permissible activities, facility operators must record all required tracking information related to the operation while losing access to the seed-to-sale system. These records will then be used to retroactively account for medical marijuana inventories' movement during the loss of access period. These records must then be maintained as part of the inventory on record.

SEED-TO-SALE SYSTEM PROVIDERS

Seed-to-sale system providers are third-party inventory management and control platform providers who have received a certificate of approval from the Department. The Department approved these providers because they have been able to satisfy the Department's regulatory requirements established by Rule 19 CSR 30-95.090 (3).

Per regulation, the seed-to-sale system provider must deliver to implement the regulatory inventory tracking system successfully. The Department requires that, at a minimum, the seed-to-sale system provider be able to deliver on the following:

1. Provide the Department with access to all inventory tracking information contained within the system.
2. Maintain the confidentiality of patient data and records stored within the system.
3. Produce detailed analytical reports.
    a. Per facility, the total quantity of daily, monthly, and yearly sales (by product type).
    b. The average prices of daily, monthly, and yearly sales at the facility per product type.
    c. The total inventory or sale record adjustments at the facility.

In addition to meeting these requirements, the seed-to-sale system providers can integrate fully with METRCs via its application programming interface (API). AN API is a "computing interface that defines interactions between multiple software intermediaries." Or, more simply put, the two platforms can "push" and "pull" data between themselves.

When selecting a seed-to-sale system provider, entity operators need to ensure that the Department has certified their provider of choice. Failure to do so may result in strict administrative action taken by the Department.

Per regulation, the Department is required to implement a regulatory enforcement tool which "tracks and traces" all inventories of medical marijuana in the state of Missouri. The track and trace system is not for the facility operator; it is nothing more than a platform from which the Department may remotely monitor licensees to ensure compliance with various regulations.

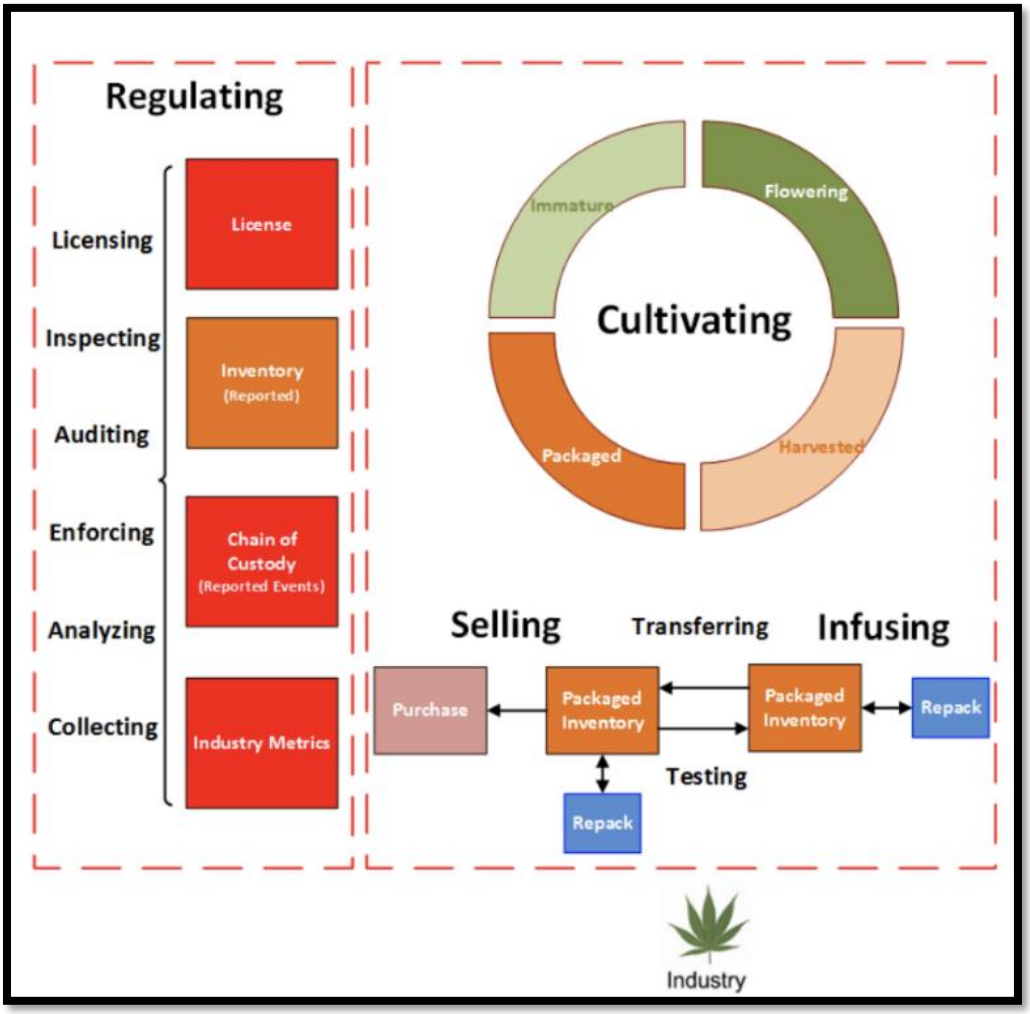


Image - METRC Enforcement

MARIJUANA ENFORCEMENT TRACKING REPORTING AND COMPLIANCE (METRC)

The Missouri medical marijuana seed-to-sale contract was awarded to the Marijuana Enforcement Tracking Reporting and Compliance (METRC) platform. METRC is the track and trace system provider in thirteen (13) states and works closely with enforcement agencies to implement each state's technological track-and-trace component requirements.

USING METRC

METRC is used by regulators to enforce the applicable rules laws surrounding Missouri's Medical Marijuana program. When it comes to using the required track and trace system, accountability is everything. Whether the METRC administrator or a METRC user, any individual is fully responsible for their actions while logged into the track and trace system. Everyone must use their unique username and password to access and interface with METRC data. METRC admins and users should never share their credentials with any other employee, and they should always sign out of the seed to sale system once a task is completed.

INVENTORY REPORTING

The term "track and trace" is vague but encapsulates the Department's desire to monitor all inventories of regulated medical marijuana from time of its "conception" until it has been transferred to a valid medical patient or their qualified caregiver (or wasted). All facility operators, regardless of the facility type, must have operational policies and procedures which account for, but not be limited to, the following:

1. Packaging and Labeling of Medical Marijuana.
2. Sale and Transfer of Medical Marijuana.
3. Transportation of Medical Marijuana.
4. Receipt or delivery of Medical Marijuana.
5. Return of Medical Marijuana.
6. Product recalls.
7. Destruction and disposal of Medical Marijuana.
8. Laboratory sampling and testing requirements.
9. Storage of Medical Marijuana.

Internal facility policies and procedures should include reporting and record-keeping requirements, which account for all the various forms of commercial activity involving any form of medical marijuana. Entities must ensure all inventory records entered into METRC and any internal reporting documents contain, at a minimum, the following information:

1. The name and type of medical marijuana.
2. The unique identification of medical marijuana.
    a. RFID Tag Numbers (Package or Plant).
    b. Harvest Batch Number(s).
    c. Production Batch Number(s).
3. The amount of medical marijuana, by weight or account.
4. The date and time of the activity.
5. Identifying medical marijuana that is ready for transfer or has been transferred.
    a. If transferred in or out of the facility, then the name, address, and license number(s) of the other entities involved in the transfer of medical marijuana must be documented.

All inventory changes should be documented immediately in METRC and the Seed-to-Sale system so that they do not go unaccounted for.

TRANSPORTING REQUIREMENTS

All medical marijuana identified for transport by an entity must be accompanied by an accurate shipping or transport manifest generated through the seed-to-sale system. No medical marijuana is permitted to be transported without having the required seed-to-sale transport manifest.

Transport manifest information must always include the following:

1. The name, license number, and Licensed Premises address of the originating entity;
2. The name, license number, and Licensed Premises address of the entity transporting the medical marijuana;
3. The name, license number, and Licensed Premises address of the entity transporting the medical marijuana;
4. The date and time of departure from the Licensed Premises and approximate date and time of departure from each subsequent Licensed Premises, if any;
5. Arrival date and estimated time of arrival at each Licensed Premises; and
6. Driver license number(s) of the transportation personnel involved in the transport of Medical Marijuana, the make, model, and license plate number of the vehicle used for transport.
7. A signature upon receipt.

Anytime an entity is preparing to ship or receive medical marijuana, the entity's employee agents must always perform a double-check to ensure that the physical inventory and the itemized inventory listed on the transport manifest match. Often medical marijuana strains and products share similar names and can be pulled from inventory storage incorrectly. For example, an entity may accidentally ship you "Grape Stomper" medical marijuana when you ordered "Grape Ape" medical marijuana. Another example may be that you received "wax" medical marijuana concentrate when you ordered "shatter" medical marijuana.

To ensure the accuracy of the items shipped or received, facility operators will want to ensure the accuracy of the weight or count of the medical marijuana products and goods identified on the transport manifest. Any discrepancies discovered during the due diligence check must be documented in the seed-to-sale system as well as on any relevant business record. All records must be maintained per the Departments' requirements.

RFID

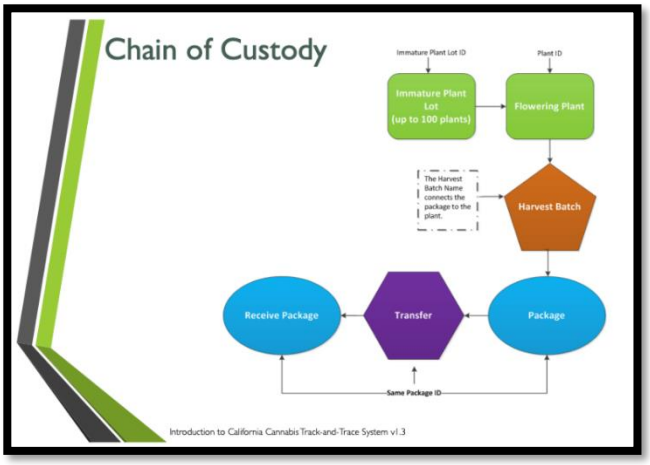


Figure 2 - Chain of Custody

The seed-to-sale system, METRC, is a database inventory tracking system paired with Radio Frequency Identification, or RFID, Technology, which delivers a fast and accurate account of all commercial cannabis at any point in the seed-to-sale supply chain. All RFID tags used with the seed-to-sale system are RFID tags, which aid in the Department's enforcement priorities related to inventory tracking.

METRC utilizes two different types of RFID Tags: Plant Tags and Package Tags.

PLANT TAGS

Plant Tags are the responsibility of all entities engaged in the cultivation of medical marijuana crops. Plant Tags are required to account for groupings of immature seedlings or clones. Plant Tags have many built-in features to help with the overall tagging and inventory tracking process. These features include the Licensed Facility Name, the license number of that facility, and a Unique Identification Number (UID).

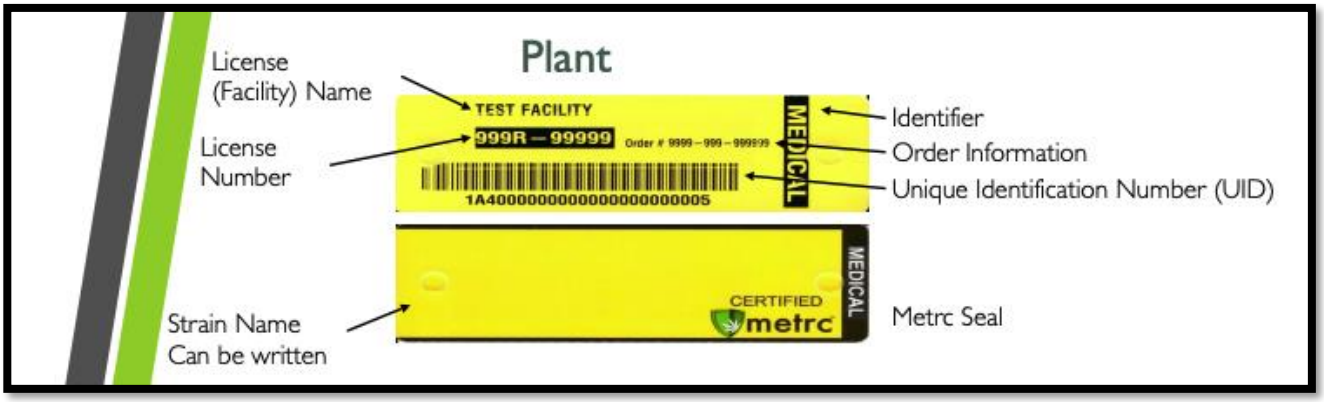


Figure 3 - Plant Tag Breakdown

PACKAGE TAGS

Packages are created from immature plants, harvest batches, testing lab samples, production batches, and other containers, such as those prepared for transfer.

Any amount of medical marijuana or medical marijuana product is required to be identified as a "package" in the seed-to-sale system and affixed with an RFID package tag before it may be sold, manufactured, or transferred. All products prepared for transfer must be attached with an

RFID tag that comports with the data in the seed-to-sale system and the package RFID number indicated on the Shipping Manifest.

Figure 4 - Package Tag Breakdown

CULTIVATION FACILITY OPERATIONS

Medical Marijuana Cultivation facilities are the point of origin for all Medical Marijuana that enters Missouri's medical program. This is not merely because cultivation facilities are where the supply chain begins for cannabis operators, but because of Rule 19 CSR 30-95.040 (4)(D). This rule requires that "After December 31, 2020, marijuana for medical use shall be grown from seeds or plants obtained from a Missouri licensed cultivation or dispensary facility."

Operators of Cultivation facilities must ensure that beginning on January 1, 2021, that all their new genetics are sourced from entities licensed by the Department. Failure to do so will violate the Inventory Management System's integrity and result in the Department's administrative action to violate the rules. Per the Department, Medical Marijuana Cultivators licensed privileges to allow operators to cultivate, harvest, process, store, and transfer Medical Marijuana.

CULTIVATION FACILITY REQUIREMENTS

In addition to the general Medical Marijuana facility requirements established by the Department per Rule 19 CSR 30-94.040, Missouri Medical Marijuana Cultivation facilities are required to follow a few more additional regulations to ensure full compliance with the Department's rules.

Specifically, Rule 19 CSR 30-95.050, Cultivation Facilities, establishes the Departments, additional regulatory requirements for all medical marijuana cultivation facility operators. These different rules require entities to maintain other books and records, have certified odor control plans, employee training standards, storage requirements, and even cultivation facility types. Medical Marijuana Cultivation facility requirements are related to growing, maintaining, storing, processing, and transferring marijuana at a licensed facility.

INDOOR, OUTDOOR, AND GREENHOUSE CULTIVATION FACILITIES

Medical Marijuana may be cultivated in three types of facilities.

- Indoor
- Outdoor
- Greenhouse

The main differences to note for the three types of Cultivation facilities are the lighting and flowering plant or canopy space limitations. It's important to remember that regardless of the kind of facility in which marijuana is cultivated, each licensed facility must be operated

Image 12 - Outdoor Medical Marijuana Crop

Image 13 - Cannabis

and maintained in a manner that ensures safety and security for all Medical Marijuana and employees of the facility.

Additionally, if multiple Cultivation facility licenses operate simultaneously, the number of licenses multiplies the size limitations. Put merely, licenses for cultivation operations can be "stacked" to achieve a greater capacity to cultivate Medical Marijuana. As such, cultivation operations should be considerate of plant count limitations and not exceed the Department's limits per the flowering plant or canopy space.

INDOOR CULTIVATION FACILITY

Indoor Cultivation facilities, which use artificial lighting for growing operations, are limited to no more than 30,000 square feet of flowering canopy space. Indoor cultivations facilities provide optimal environmental controls but require consideration in facility design for electrical, ventilation, and odor control equipment.

OUTDOOR CULTIVATION FACILITY

Outdoor Cultivation facilities, which use natural lighting for growing operations, are limited to 2,800 flowering plants or less. Outdoor cultivations enable licensed operations to take advantage of natural lighting opportunities and battle the unpredictable outdoor cultivation environmental elements.

GREENHOUSE CULTIVATION FACILITY

Greenhouse Cultivation facilities, which use a combination of natural and artificial lighting for growing operations, are limited to either 30,000 square feet or less of flowering canopy space or 2,800 flowering plants or less. Greenhouse cultivation facilities provide both environmental control abilities and the ability to harness natural lighting for growing operations.

Image 14 – Greenhouse Medical Marijuana Crop

REQUIRED CULTIVATION FACILITY RECORDS

Cultivation facility operators must maintain a few additional books and records specific to the cultivation facility operations. These records include pesticide and agricultural chemical use records, certified odor control plans, green and hazardous waste disposal, to name a few.

Operators should ensure that they have Standard Operating Procedures that describe the record-keeping process and identify which business records must be maintained per the Department's regulations.

PESTICIDES AND AGRICULTURAL CHEMICALS

As Medical Marijuana Cultivation facility operations require the use of pesticides and other agricultural chemicals, required records should account for and document the activities necessary for the production and processing of marijuana. Specifically, each Cultivation facility must maintain records for pesticides and other agricultural chemicals applied to marijuana plants and growing mediums by month and batch.

It is also crucial to remember that each required cultivation record must be maintained for at least five (5) years. These application records should also be supported by Standard Operating Procedures, which indicate the correct way to handle, mix, load, and apply all pesticides and agricultural chemicals.

ODOR CONTROL PLAN

For odor mitigation purposes, each medical marijuana cultivation, unless located in a rural, unincorporated agricultural area, must create and maintain an Odor Control Plan. Odor control plan mitigation practices must include but are not limited to, engineering controls such as system design and operational procedures. Also, odor control plan system designs and mitigating techniques must be reviewed and certified by a professional engineer or a certified industrial hygienist as sufficient to mitigate odors for all odor sources effectively.

Additionally, Medical Marijuana Cultivation Facility operators should consider how odors may be a nuisance or a risk for the operation. Odors are an identifying factor for opportune criminals and may jeopardize the facilities' security measures. For example, Marijuana odor emissions from a facility may not only alert individuals of the presence of the Medical Marijuana Cultivation Facility but make the business a target for criminal activity due to the legality of marijuana in many neighboring states. Remember, the diversion of medical marijuana is one of the Department's highest priorities.

CULTIVATION EMPLOYEE TRAINING

Cultivation facility employee training is imperative in the operation of a safe, secure, and prosperous medical marijuana cultivation facility. Adequate training ensures cultivation methodology is executed the same way each time and that employees are providing all inventory tracking requirements, as necessary.

Medical Marijuana Cultivation facility employee training, at a minimum, must be trained per the Department's requirements in the following areas:

- The use of security measures and controls to prevent the diversion, inversion, theft, or loss of marijuana.
- The use of the Statewide Track and Trace System.
- Emergency responses include severe weather, fire, natural disasters, and other unauthorized intrusions.
- The confidentiality standards for information related to the medical use of marijuana per the Health Insurance Portability and Accountability Act of 1996.
- The methods used for the cultivation of marijuana at the facility.
- The safety and sanitation procedures for the facility.

Each Cultivation facility must ensure that employees receive appropriate training and retain training records to document the required training to satisfy the Department Cultivation facility employee training requirements.

CULTIVATION FACILITY TRANSFERS

Transfer of Medical Marijuana by a Cultivation Facility is not allowed unless the marijuana has been transferred to a Testing facility first for required testing. Also, a Cultivation may only transfer medical marijuana that it has cultivated at its licensed premises.

TESTING FACILITY TRANSFERS

Medical marijuana may not be transferred from the Cultivation facility until all required testing, including cannabinoid profile (THC, THCA, CBD, CBDA, and CBD) and contaminant (microbials residuals, heavy metals, and moisture content) testing results have been passed per the 19 CSR 30-95.070 Testing rules.

Failure to comply with testing requirements

OTHER FACILITY TRANSFERS

Transfer of Medical Marijuana by a Cultivation facility, after the marijuana has passed all required testing, may only be transferred to;

- Dispensary facilities
- Testing facilities
- Manufacturing facilities
- Transportation facilities
- Offsite Warehouse Storage facilities

CULTIVATION FACILITY STORAGE

The storage of Medical Marijuana must be in an approved location of the Cultivation facility or at an offsite warehouse that meets minimum requirements established by the Department.

Furthermore, Cultivation facility storage operations should ensure that marijuana is maintained in a manner that prevents the potential for contamination or risk of being accessed by any person or thing that would render the marijuana non-compliant or otherwise unfit for use in licensed operations.

OFFSITE WAREHOUSE-STORAGE REQUIREMENTS

Per Rule 19 CSR 30-95.050(2)(G)(2), the Department requires each offsite warehouse storage facility to meet all regulatory security requirements previously discussed. These requirements stipulate that an offsite warehouse-storage facility cannot be physically located within 1,000 feet of any existing elementary or secondary school or worship place. Finally, the offsite warehouse-storage must be approved if the controlling entity qualifies as an owner of multiple licenses (see Rule19 CSR 30-95.040(3(C)).

UTILIZING METRC FOR CULTIVATION FACILITY OPERATORS

Remember, all operators, regardless of facility type, must utilize the state's mandated track and trace system to account for all medical marijuana inventories within the State of Missouri. As such, all regulated medical marijuana cultivation facilities in the State of Missouri are responsible and required to track all medical marijuana plants accurately and adequately through the cultivation cycle. Tracking medical marijuana plants in METRC is done utilizing RFID tags provided by METRC.

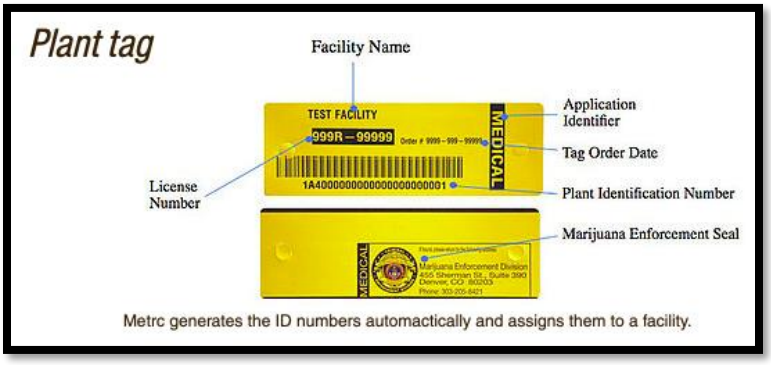
Entities must remember that per Rule 19 CSR 30-94.040 (4)(D):

"All marijuana for medical use, including plants, flowers, and infused products, sold in Missouri shall be cultivated in a licensed cultivation facility in Missouri. After December 31, 2020, marijuana for medical use shall be grown from seeds or plants obtained from a Missouri licensed cultivation or dispensary facility."

RFID TAGS AND PLANT TRACKING

Facility operators must know when and how to appropriately tag individual medical marijuana plants to be accounted for in the track and trace and seed-to-sale systems. According to the Department, plants must be tracked from "seed or immature plant stage;" however, the Department has failed to define an immature plant. The failure to define "immature plant" is a significant oversight by the Department, which will lead to confusion amongst facility operators and potentially invalidate the integrity of the track and trace and seed to sale systems.

Looking at other states which utilize METRC and have defined "immature plant," facility operators may borrow Colorado's definition or create their own stricter definition until the Department can clarify their definition: "A nonflowering Regulated Marijuana Plant that is no taller than eight inches and no wider than eight inches." METRC RFID tags must accompany all medical marijuana plants once they have reached the "Immature Plant" stage



PROPAGATION AND IMMATURE PLANTS

All propagation, whether through cloning, "popping" seeds, or any other method, is required by the Department to be accounted for within the Inventory Tracking System. During this phase,

there is no need for the individual plants to be physically tagged with an RFID tag, so long as they fit the not-so-definition for an Immature Plant that the Department failed to provide. Despite not having to tag these plants physically, these plants should be accounted for in some capacity within METRC. This can be achieved in METRC by having an authorized Administrator or User log into their account, click the "Plants" tab, select the "Immature" tab, and then select "Create Plantings."

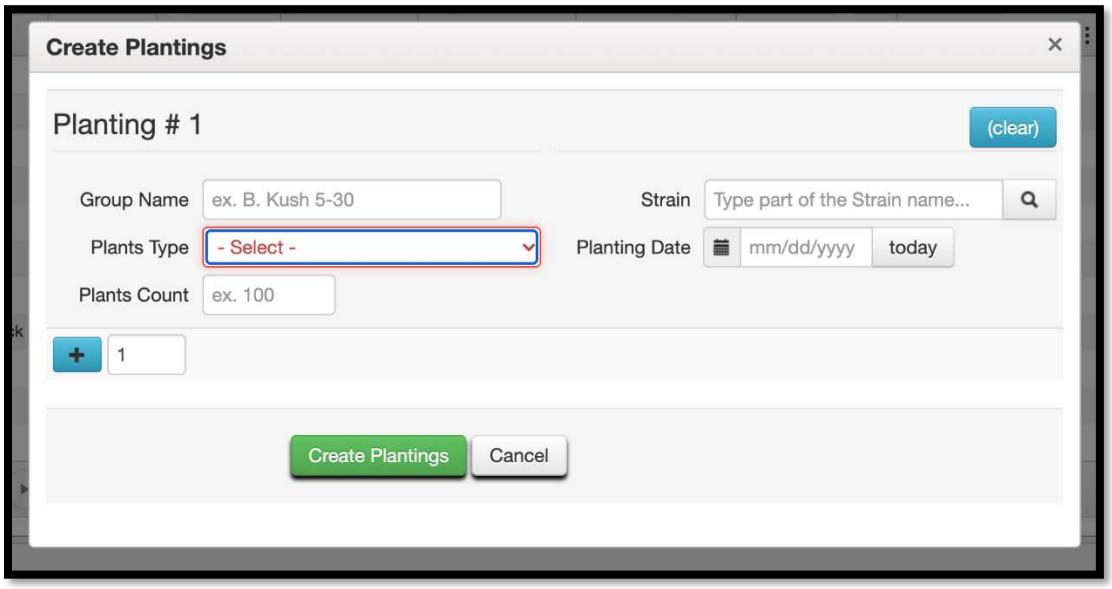


Image 15 - METRC Menu: Creating Plantings

CLONING

Suppose cloning is used to propagate medical marijuana plants. In that case, best practice suggests the following needs to be accounted for using the Inventory Tracking System and internal procedures and policies to account for each Immature Plant accurately:

- Mother plant(s) information (Tag #, Strain, Location, etc.);
- Date clones were taken;
- Number of clones taken; and
- Location of clones.

Standard Operating Procedures outlining the cloning processes should also include record keeping and reporting requirements related to tracking all medical marijuana plants, even in infancy. The Inventory Tracking System needs to be updated promptly as undesired clones are wasted, die, or no longer fit the definition to qualify as an Immature Plant.

Propagation vessels, such as "AeroCloners" or "Clone Domes," should be labeled in some capacity with information reflected in the Inventory Tracking System. This will help in ensuring all immature medical marijuana plants are accurately accounted for.

Image 16 - Clones in a Dome

SEEDS

If starting from seed, a licensed medical marijuana cultivation facility operator must ensure that all sources of medical marijuana seeds are coming from a licensed medical marijuana cultivator or dispensary business in the State of Missouri after December 31, 2020.

All applicable chain of custody requirements must be adhered to when procuring medical marijuana seeds from a licensed entity/. This includes but is not limited to paying/collecting excise taxes, using transport manifests, and packaging seeds for Transport per minimum packaging and labeling requirements. Remember, all seeds and immature plants need to be tracked and identified in the track and trace and seed-to-sale systems.

Seeds that are being "popped" should be labeled in some capacity to include the following information for easier inventory management tracking:

- Seed Source Information:
- Strain Name / ID;
- Originating License Number (If purchased seeds from another Regulated Marijuana Business)
- Date seeds were "popped";
- Number of seeds popped; and
- Location of "popped" seeds.

Image 17 - Sprouted Seedlings

VEGETATIVE AND FLOWER CYCLES

Image 18 - Flowering Marijuana

Once all medical marijuana plants have outgrown the borrowed "immature plant" definition and qualifications (until the Department can clarify an immature plant), then each medical marijuana plant must be given its own, unique, RFID tag and updated accordingly in the Inventory Tracking System.

All relevant information before "tagging" the plant with an RFID tag must be captured in the track and trace and seed-to-sale systems to accompany each plant as it works its way through the stages of cultivation and the supply chain.

A METRC User or Admin will be responsible for ensuring each medical marijuana plant's accuracy as it works its way through the cultivation process. A METRC User or Admin must account for accuracy and integrity throughout the Seed to Sale system's digital inventory and reflect the physical inventory.

HARVESTED MARIJUANA AND BEYOND

After the flower cycle concludes, typically an 8 – 10-week period, medical marijuana plants are ready to be harvested and prepared for the next supply chain phase. Regardless of the next step in the supply chain, there are Department regulations that all medical marijuana cultivation facility operators must follow immediately following the harvest of all medical marijuana plants.

Before proceeding, it is essential to understand and comprehend the difference between "Batch Number," "Harvest Batch," "Harvested Marijuana," and "Production Batch."

Please take a moment to revisit each of the following definitions:

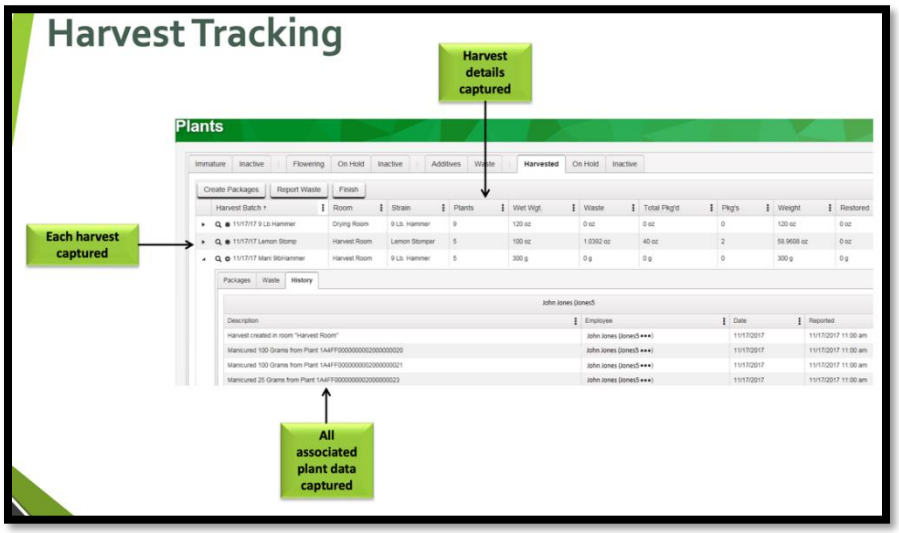
Word	**Definition**
Batch or Batch Number	Refers to a specifically identified quantity of medical marijuana, from immature plant stage to harvest, uniform in strain, and cultivated utilizing the same growing practices.
Harvest Lot	Refers to a specially identified quantity of marijuana uniform in strain, cultivated utilizing the same growing practices, harvested with a seventy-two (72) hour period at the same location, and under uniform conditions.

HARVESTING MEDICAL MARIJUANA

All medical marijuana cultivation facility operators need to ensure that all medical marijuana is adequately tracked beyond the harvest date.

METRC Users or Admins can capture and track all harvest related activities in the track and trace and seed-to-sale systems. The METRC Admin or User(s) will need to ensure all the following are documented in the harvesting process:

- Harvest Name – Create a unique harvest name. Strain Name and Harvest Date are suggested best practices.
- Weight – The "Wet" weight of the plant in its entirety after being separated from the "root ball" or mass (stems, stalk, flowers, leaves, trim, etc.).
- Waste – Waste can be entered and updated multiple times after harvest.
- Finish – Once the Harvest Batch is completely done, the METRC Admin or User must "Finish" the Harvest Batch. Harvest Batches are completed when the entirety of the harvest batch has been packaged for transfer, turned into a production batch for concentrate manufacturing, or wasted and disposed of properly.



METRC is the track and trace system platform that all entities must utilize to conform to the Departments' strict inventory tracking requirements. METRC's database for medical marijuana plant includes inventory tracking and data which account for all the following:

- The complete event history for the medical marijuana plant(s);
- Unique RFID Tag Number;
- The phase of life;
- The ability to:
    - Replace RFID Tags due to damage/wear and tear;
    - Change physical locations;
    - Record destroyed or dead plants;
    - Record any plant additives (Fertilizers/Beneficial's);
    - Record manicured or plant waste; and
    - Create plants (Cloning/seeds).

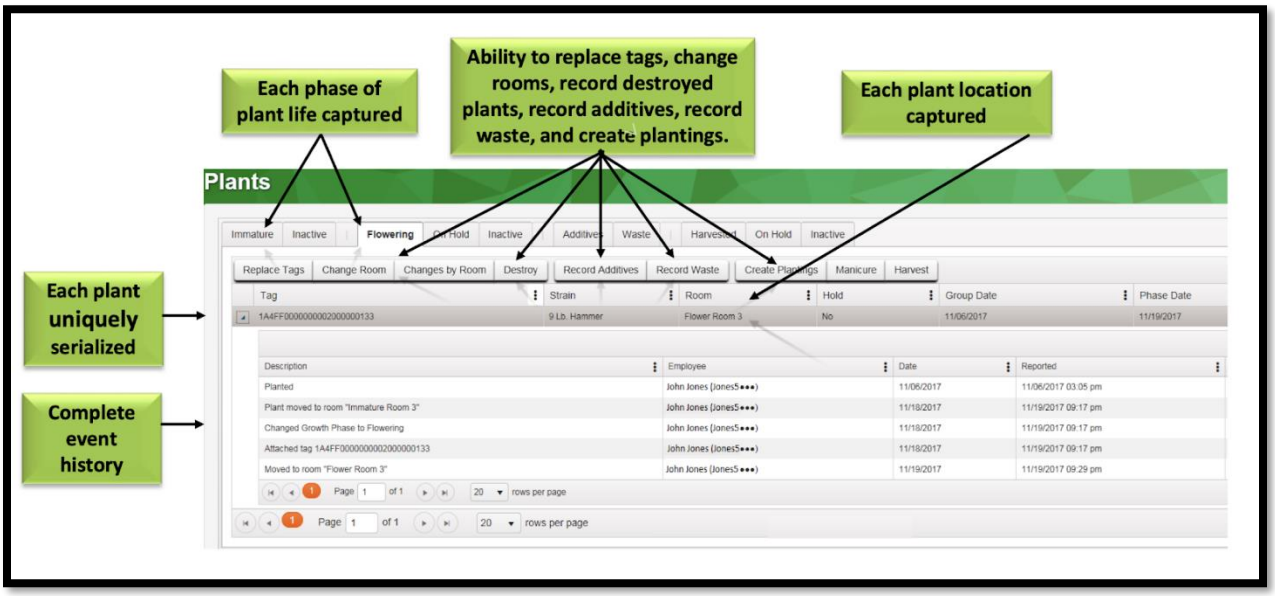


Figure 5 - METRC Plant Tab Menu

8 RULES FOR CULTIVATION FACILITY OPERATOR INVENTORY TRACKING

It is important to remember the eight (8) key elements that guide Inventory Tracking:

1. Correctly indicating the creation of harvest, including the assigned harvest batch number;
2. Accurately identifying the cultivation rooms and location of each plant within those rooms on the licensed premises;
3. Accurately identifying when inventory is no longer on the licensed premises;
4. Correctly indicating that a Test Batch is being created to satisfy regulatory testing requirements;
5. Accurately indicating track and trace and seed-to-sale systems the category for all medical marijuana;
6. Accurately including a note explaining the reason for any destruction of medical marijuana and basis for any adjustments of weights to the packages;
7. Using a unit of measurement that is compatible with the Inventory Tracking System; and
8. Utilizing approved scales for weighing all inventories of medical marijuana.

THE WORKER PROTECTION STANDARD

The Worker Protection Standard is an essential and often neglected requirement for compliance. However, this requirement is not a Department requirement but rather a condition by the Environmental Protection Agency (EPA). So, what is the Worker Protection Standard?

The Worker Protection Standard (WPS) is a required Environmental Protection Agency training which empowers agricultural workers who come into contact with pesticides through their day to day activities to appropriately and adequately handle and mitigate issues that might arise due to the use and presence of pesticides. Remember that Rule 3-330 (B) establishes the requirement Licensees to follow all "all other federal, state and local laws, statutes, rules, and regulations."

It is imperative that medical marijuana cultivators comply with the Worker Protection Standard Training as failure to do so may result in administrative action against the Licensee. The WPS requires that all agricultural institution employees be trained either as a Pesticide Worker or a Pesticide Handler before performing any activities in areas where pesticides have been applied within the previous 30 days.

Please note: All employees working with any medical marijuana crops treated with pesticides need to be trained per the WPS before engaging in work activities.

Image 19 - Decontamination Info Graphic

The Worker Protection Standard empowers Agricultural Workers and Employees with the knowledge to protect themselves and others from the adverse health effects of improper pesticide use. This includes, but is not limited to:

- Pesticide Exposure: Where and what forms of pesticides and pesticide residues will be encountered at worksites and during work activities;
- Hazards of pesticides from toxicity and exposure; including acute, chronic, and delayed effects and sensitization;
- Routes through which pesticides enter the body;
- Signs and symptoms of pesticide poisoning;
- Emergency first aid for pesticide injuries or poisoning;
- Emergency decontamination procedures, emergency decontamination kits, proper eye flushing techniques;
- Hazards of chemigation and drift and pesticide residues on clothing;
- Central locations, product labels, and Safety Data Sheets (SDS);
- Format and meaning of information of pesticide labels, labeling;
- Signal Words and Precautionary Statements;

- Warnings about applying pesticides in a way that can harm humans, fish, animals, endangered species;
- Safety Requirements for handling, transporting, storing, and disposing of pesticides, including how to handle a spill cleanup;
- Equipment safety when working on equipment that could be contaminated with pesticides; and
- Design of warning signs, posting of warnings, and oral communication of warnings.

Unfortunately, the Worker Protection Standard Training is not part of this iComply, LLC Training. However, iComply can provide Worker Protection Standard Training and operational support if needed.

MEDICAL MARIJUANA INFUSED PRODUCT MANUFACTURER

Medical Marijuana Infused-Products Manufacturers are specialized operators who manufacture, prepare, package, store, and label medical marijuana products. Marijuana products may be in concentrated form or comprised of marijuana-infused into edibles, ointments, tinctures, transdermal patches, suppositories, and other products.

Medical Marijuana Infused-Products Manufacturers can produce water-based concentrates, food-based concentrates, heat/pressure-based concentrates, solvent-based concentrates, and medical marijuana edible and non-Edible marijuana products.

Manufacturing Facilities Operations are complicated, profitable, and are genuinely never a dull moment. Manufacturing facility operators provide a myriad of services for the industry and produce many unique products that benefit medical marijuana patients' various ailments.

Image 20 - Vaporizer Delivery Device aka a "Cart"

GENERAL OPERATIONAL REQUIREMENTS

No matter what type of Regulated Marijuana Concentrate or a Regulated Marijuana Products a Manufacturer is producing, there are several universal truths that Licensees must accept and follow to remain compliant with Regulations. These requirements include the following:

1. Ensure employees are properly and adequately trained. This includes training employees to comply with the following:
    a. The use of security measures and controls for the prevention of diversion, inversion, theft, or loss of marijuana;
    b. Proper use of the statewide Track and Trace system;
    c. Procedures for responding to an emergency. This includes severe weather, fire, natural disasters, and unauthorized intrusions;
    d. The differences between the types of infused products manufactured at the facility and the method of production; and
    e. Safety and sanitation procedures for the facility.
2. Odor control plan, which has been reviewed and certified by an industrial hygienist or a professional engineer. All approved odor control plans must be sufficient to mitigate odors for all odor sources effectively.
3. Transfers can only be made to other Medical Marijuana businesses only once a certificate of analysis or verification letter has been provided by a licensed Testing Facility, which comports that the facility's medical marijuana has passed all required testing.
    a. Medical Marijuana-Infused Products Manufacturing facility operators can only transport medical marijuana that they produced to a licensed and valid Dispensary, Testing, or another Infused Products Manufacturing facility. Operators are not permitted to Transfer anything to a Medical Marijuana Cultivator.
4. Operators engaged in any production involving ingestible (edible) medical marijuana-infused products must comply with all applicable local, state, and federal food safety regulations.
5. Storage is only permissible at the licensed premises in designated storage areas and approved and compliant, offsite warehouse.
6. Operators that perform cannabinoid extractions using solvents must install air-handling systems and controls designed to minimize the risk of explosions and fire. This means that all extractions using volatile solvents must be performed in a fully enclosed, designated space for medical marijuana concentrate production. This space must be indicated on the license premise diagram.
    a. The controls located in this space should be designed to prevent the solvents from igniting, the safe storage, use, and disposal of solvents, and policies to ensure all solvents are adequately off-gassed.
7. Following all health, safety, and sanitation requirements.

Also, to ensure that the facility is operated within the specific context outlined by the Department for Infused Product Manufacturing Facilities, the following best practice suggestions should be adhered to:

1. Creating and maintain SOPs for each unique item produced must contain:
    a. Safety checks before conducting production operations;
    b. How to prepare medical marijuana for processing;
    c. How to extract Cannabinoids;
    d. How to purge any solvent or other components;
    e. How to adequately clean and sanitize equipment used during production;
    f. Proper disposal of all waste types.
2. Provide SOP training before any individual, owner, or employee begins on production processes.
3. Maintain comprehensive records and keep them per record-keeping requirements. Records should comport with the items outlined in the SOPs. Records should include, but not be limited to the following:
    a. Master Manufacturing Protocols;
    b. Equipment, utensil, and contact surface cleaning logs;
    c. Batch Production Records; and
    d. All records for quality control, assurance, and product development.

OPERATIONAL TRAINING REQUIREMENTS

Per 19 CSR 30-95.060 (2)(A), all Manufacturing Facility employees must be fully trained before conducting work in the facility. Failure to adequately train employees in their areas of operation can be detrimental to the business's success. Outside of the regulatory requirement for employee training, lack of employee training can create non-compliance, hazardous work environments, and fines or other administrative actions taken by the Department.

Adequate training must be provided to every Owner-operator and facility agent before the individual undertaking any step in the manufacturing process of producing Medical Marijuana Concentrate or Goods. Adequate training must include, but not be limited to the following:

- Providing a copy of the training manual to individuals and conducting live, in-person training instructions for them, which detail the topics required as included in the provided training manual.
- All training must be signed off on by the trainer and the trainee. These logs should include the training date, the names of the trainer and the trainee(s), the topics trained on, the materials used to teach, and the signatures of all parties upon completion of the training.

EMPLOYEE TRAINING

The training of your employees will have a significant effect on your business. Although the cannabis industry is very much like other industries, this industry presents its unique processes. Making sure that your employees are trained keeps everyone uniformly following these processes. All employees should be given the tools and adequate instruction and training needed to execute their job to the best of their ability. Adequate training is crucial for keeping quality uniform and is also essential to ensure all employees' health and safety.

A manufacturing facility is a dangerous place with machines that must be used correctly and following the manufacturer's instructions. If an untrained or inadequately trained employee operates manufacturing machinery, they may be severely injured or worse. Training requirements should be clearly defined for each employee based on their roles and responsibilities, as described in their job description.

For example, only employees on the extraction team should be trained on extraction processes and procedures, such as performing a solvent-based extraction. No other facility employees should be instructed or be permitted to conduct any portion of the extraction process.

Employee re-training should occur regularly, or at the very least annually, to ensure that all employees are conducting their work correctly. Having defined employee roles and responsibilities will help prevent workplace accidents and provide a consistent standard of quality for the operation and the products produced.

MANUFACTURING TRAINING

All employees should know the differences between the types of infused products manufactured at that facility and how to produce them repeatedly. Manufacturers may have a variety of products, from concentrates to infused edibles. Everything in between and their employees must be appropriately trained to make each facility's unique product. Operators must first develop a Master Manufacturing document which accounts for the step by step process for producing each product.

Image 21 - Live Resin THCa Crystals

A master manufacturing protocol needs to be in place for each process to make the product consistent with consistent quality each time it is produced. Following the protocol will also minimize any risks with making that product and mitigate the potential for product contamination or misuse of manufacturing equipment.

A manufacturing company should have all Standard Operating Procedures on-site and readily available. This way, employees can be appropriately trained and access them for re-training or revisions as needed. Below are some of the most common products made by a manufacturing facility:

- Shatter
    - Shatter is a cannabis concentrate made usually from dried cannabis trim, shake, or buds. Propane or butane are the solvents used in this extraction. After extraction, the solvents are purged out in a vacuum oven.
- Wax
    - Wax can be made from either dried or fresh frozen material. The solvents used are propane or butane. The way that the solvent is purged is what gives it a

unique consistency. All solvents are removed by placing the raw concentrate in a Pyrex dish, the dish is then placed on a hot surface, and then the product is "whipped."

- Live Resin
    - Live Resin is a product that is made with only fresh frozen cannabis. This extraction uses propane or butane. By using fresh-frozen material, the terpenes are preserved, making this product very flavorful. This also gives the product different effects based on the terpenes that are being consumed.
- Distillate
    - Distillation of cannabis is a process that uses heat and vacuum to boil off certain cannabinoids. This gives you the ability to extract any cannabinoids by themselves. In these products, the cannabinoids are already activated, making them ready to be put into edibles as is.
- Edible Products
    - There is an unlimited variation of edible products that can be made. They have in common that a distilled cannabinoid product is used to give the product its effect. Some examples of edible products are:
        - Chocolates
        - Gummy Candy
        - Baked Goods
        - Drinks
- Topicals
    - Topicals are products that are placed directly on the skin in a problem area. The skin absorbs these products into the local area. Some topicals enter the bloodstream and have a euphoric effect. Others stay within the local area that it was applied and did not have a euphoric effect. Some examples of edible products are:
        - Salves
        - Lotions
        - Creams
        - Patches

Comprehensive Training materials should provide step-by-step instructions for each method used to produce a Medical Marijuana Concentrate or Good. Training manuals must include, but not be limited to the following:

1. All standard operating procedures for each method of concentrate or good produced.
2. Quality control procedures.
3. Emergency procedures.
4. The appropriate use of any necessary safety or sanitary equipment.
5. Identification of the hazards presented by all solvents or chemicals used in the manufacturing process as described by the Safety Data Sheet (SDS).
6. Clear instructions for the safe use of all equipment and machinery used in each step of the process. All instructions should comply with the manufacturer's instructions for use.

SECURED MEASURES TRAINING

Regardless of facility type, all facility operators must develop and implement security measures and controls to prevent medical marijuana from being diverted, lost, stolen, or otherwise removed from the regulated market. This is covered in more depth in the Facilities training. Here are some key points to focus on:

- Security Surveillance Systems
    - Employees need to be able to recall surveillance footage if cannabis is diverted or stolen. This includes producing still images from video footage and printing a color copy of the image.
- Security Alarm Systems
    - Employees will need to be able to arm, disarm, and identify alarms.
    - Alarm systems come with many features that can help make the facility more secure. Such as the "stay" function, which arms the door and window alarms but disarms the motion detection alarms.
- Armed Robbery
    - Because marijuana remains federally illegal and illegal in several states, black and grey markets exist. The existence of these markets means that regulated, licensed operators are the targets of crime. Operators need to train employees to respond to any forced or armed robbery attempt appropriately.

EMERGENCY PROCEDURES

Procedures for responding to an emergency event should account for severe weather, fire, natural disasters, and unauthorized intrusions. Employee safety should be the most significant concern of any operation as manufacturing facilities are inherently dangerous. Employee training and comprehension are particularly vital as a failure to be adequately prepared for an emergency could mean severe injury or death.

- Emergency procedures should be developed before beginning operations. Each facility will have its own unique set of emergency procedures, but all facilities should have emergency procedures for the following instances:
    - Armed Robbery or Forced Entry.
    - Chemical Spill.
    - Natural Disasters; and
    - Fires.
- Emergency procedures should include evacuation plans. Evacuation plans should be posted in highly visible places throughout the facility. For all emergency procedures, emergency evacuation plans should be exercised frequently to ensure all employees know how to evacuate the facility.

    - Ensure a safe meeting spot away from the building for everyone to gather at once they have evacuated the facility. Gather places allow management to account that the entire staff has safely made it out and is accounted for.
- Fire safety is of the utmost importance in a manufacturing facility. Because manufacturers often use highly flammable solvents to extract cannabinoids from plant matter, all employees must be adequately trained in various areas of fire emergency safety. Employee training should include topics such as:
    - Fire safety standards.
    - Emergency features of the facility.
    - Evacuation plan.
    - Fire extinguisher operation.
- Missouri has various severe weather, including tornadoes, floods, severe thunderstorms, flash floods, and blizzards. Employees must be trained on how to respond to these forms of inclement and severe weather appropriately. Each type of extreme weather event is unique and must be reflected as so during employee training.
- The possibility of chemical spills must be accounted for in employee training. Employees should be trained to respond to a chemical spill event appropriately. Training and emergency procedures should account for how to evacuate the facility, how to control, contain, and clean up the spill, and how to treat anyone accidentally exposed to the spilled chemical properly. Employees must receive Hazardous Communication Training at the time of their onboarding. Operators must maintain chemical spill kits on the premises and make the location known to all personnel.

All pieces of training should be documented in a Training Matrix or Log. All documented training should include the trainee and trainers' names, the training topic, method, materials used for training, and the date(s) of training.

METRC AND INVENTORY MANAGEMENT TRAINING

METRC Training and Inventory Management Training should be of the highest priority for all operators, regardless of license type. Because the Department emphasizes inventory enforcement, this is one area of the operating entity that will ensure that employees are adequately trained.

METRC data management and inventory responsibilities should be reserved for management staff. Failure to effectively manage physical inventories and the Seed to Sale tracking system can result in license violations. Training employees to work METRC and physical inventory minimizes errors that can hinder the business.

It is important to remember that METRC has no built-in safeguards for operators and is used as an enforcement tool by the Department. This means that anyone working in METRC must know how to use it correctly, or mistakes will be made, and errors in METRC can be costly. Keeping this system current and correct is especially important to make a cannabis business successful. METRC and Inventory Management Training should include, but not be limited to, the following:

- How to navigate the METRC platform and any third-party inventory management system.

- How to be able to reconcile the inventory and keep it current. If the inventory in METRC is not up to date, it can result in regulatory violations. This could include fines and closure.
- The employees will also need to know how to transfer and receive medical marijuana products to and from other licensed facilities within METRC.
- METRC has a wide variety of reports that can be accessed. Knowing how to access these and use them is vital for saving time in projects.
- Conducting regular inventory audits
    - To correctly identify theft or diversion, the employees must prove a discrepancy in a product's inventory. This is the first step in identifying any diversion or theft. The state regulations require a quarterly audit, but it is highly advised to take a weekly or even a daily inventory.

Employees will also need to be trained in inventory management. This is vital to keeping a regular inventory log. This will make the identification of missing products much more straightforward

METRC AND MANUFACTURING OPERATIONS

Medical marijuana products manufacturers must maintain all Inventory Tracking System requirements throughout the manufacturing operation and each process's phases.

This includes tracking incoming inventories of medical marijuana as they are received and ensuring accurate inventories of all products. It changes disposition and weight throughout the various stages of the manufacturing processes. Remember, facility operators must correctly indicate the creation of a process lot, including assigning the process lot a unique identification number.

Licensees must also capture the waste weight of all "spent" material used during extraction processes and indicate the starting weights and the concentrate's yield.

NUISANCE ODORS

Various industries produce what is commonly referred to as "nuisance odors." Offenders range from asphalt companies to pet food products manufacturers and even include breweries. As marijuana is stereotypically known for its famous odor, operators have been required by the Department to develop odor controls to mitigate any nuisance odors produced by the facility.

Rule 19 CSR 30.95-060 (2)(B) requires that each facility:

"Develop, implement, and maintain an odor control plan, which shall address odor mitigation practices including, but not limited to, engineering controls, such as system design, and operational processes, which shall be reviewed and certified by a professional engineer or a certified industrial hygienist as sufficient to effectively mitigate odors for all odor sources."

Odor control is a requirement set by the state of Missouri. All cannabis businesses must submit an odor control plan to be approved by the government. This is required to mitigate the smell of cannabis in the neighborhoods that the facilities are located as they have been declared a

nuisance odor. Each facility's odor mitigation plan needs to be certified by an engineer or industrial hygienist and executed in many ways.

TRANSFERING PRODUCT

It is the responsibility of each operator to understand the requirements necessary to make a compliant product transfer. The requirements include compliance with inventory tracking, packaging, and labeling, and testing requirements. Per CSR 30-95.060 (2)(C), no product may be transferred until it has passed all required testing and received a certificate of analysis from the testing facility indicating compliance testing requirements.

Once testing has been passed, manufacturing operators can then transfer and transport their own manufactured products. Manufacturers can only move and transport their product to another licensed manufacturing facility, licensed dispensary, or a licensed testing facility. It is your responsibility as a facility operator or employee to know these regulations and always make compliant transfers. Uncompliant transfers will result in a fine or other administrative action.

The transferred product must also comply with all inventory tracking requirements and packaging and labeling requirements. Failure to comply with inventory tracking requirements or packaging requirements, such as transferring edible marijuana products not ready for final sale to a dispensary, will result in the Department's administrative action.

HEALTH AND SAFETY

Keeping a clean facility is necessary if you are producing concentrates and edibles. Even the smallest contamination can ruin an entire batch. It is in every facility's interest to go above and beyond regulation relating to health and safety, not only for regulation but also for your team and your customers' health. Some patients have immune disorders, and any small contamination can be hazardous. Any contamination can result in a product recall. During a product recall, there may be an investigation. When there is an investigation, the business may have to shut down until the investigation is over. This is bad for production; it is hard to rebound as a brand after a recall.

Image 22 - Glove Up!

The best way to avoid a recall is by being thorough with cleaning and quality control procedure. Cleaning should be done daily and logged to ensure that it is being completed. Every new employee needs to be trained on all cleaning Standard Operating Procedures. Employee handbooks should require that all employees

maintain good hygiene. The best practice is to require employees to wear clean nitrile gloves and wear hair and beard nets to maintain quality control.

QUALITY ASSURANCE AND QUALITY CONTROL

Facility operators must follow, establish, and implement robust quality assurance and control procedures to safeguard all manufactured medical marijuana from harmful contaminants. Quality assurance and quality control procedures must be built into each Standard Operating Procedure and be accounted for at each manufacturing process step.

PRODUCING MARIJUANA CONCENTRATES AND INFUSED PRODUCTS

Entities that produce medical marijuana concentrates and infused products should ensure quality assurance and control by implementing the following best practices:

1. Equipment, counters, and surfaces that are directly used in production are constructed using food-grade materials. The design of the equipment, counters, and surfaces used in medical marijuana production should discourage microbial contaminants' development.
2. Thoroughly clean all equipment, counters, and surfaces used immediately following the completion of one "Process Lot."
3. If storing dry ice, the Licensees must ensure that the room is well ventilated. Improper storage of dry ice may result in unintentional exposure to dangerously high levels of CO2.
4. Facility operators are responsible for providing individuals with proper Personal Protective Equipment (PPE). PPE must be provided for all cleaning and sanitizing agents that require it following their Safety Data Sheets (SDS). Additionally, Licensees are required to provide the necessary PPE to perform manufacturing operations healthily and safely.
5. Suppose a facility operator is producing water-based medical marijuana concentrate. In that case, they must only ever use drinking water (and use ice made from drinking water) to create a water-based concentrate.
6. If glycol or glycerin is used to produce any food-based marijuana concentrate, then those two ingredients are required to be food-grade ingredients.
7. Lastly, suppose any medical marijuana-infused products manufacturer produces medical marijuana concentrate in any pressurized system or device. In that case, they are required to comply with the regulations related to solvent-based marijuana concentrate production.

It is also vital for manufacturers of food-based medical marijuana to never produce a product that resembles or uses trademarked and branded food; or makes a product shaped like humans, animals, or fruits as these might be mistaken for non-infused foods or appeal to children.

Image 23 - CDC Testing Cannabis Vaporizer Delivery Devices

In the wake of the 2019 nation-wide vaping crisis, several ingredients were discovered to be causing adverse health effects related to the consumption of vaporizer delivery devices. While the Department does not explicitly prohibit these ingredients, facility operators should avoid using the following elements in any formulations:

1. Polyethylene glycol (PEG);
2. Vitamin E Acetate; and
3. Medium Chain Triglycerides (MCT Oil).

EXTRACTION SAFETY

Facilities that house cannabis extraction can be dangerous if proper procedures, policies, and adequate training are not developed and adhered to by responsible individuals. Every process has the potential to cause serious bodily harm or even death. While working in an extraction facility, if you do not follow safety procedures, you can face fires, explosions, severe burns, lacerations, and poisoning. Failure to do so could cause irreparable harm or death to yourself or your fellow employees.

Every extraction lab should always follow the National Fire Protection (NFPA) standards. The NFPA is an international nonprofit organization devoted to eliminating death, injury, property, and economic loss due to fire, electrical and related hazards. NFPA standards are the guidelines that Fire Departments enforce and are the guidelines for all businesses. Although cannabis extraction is a new practice, hydrocarbon extraction is used in many industries. The NFPA has policies that are necessary for any extraction facility to operate safely.

REGULATED AIRFLOW

Creating an exhaust system for all solvents is required and particularly crucial for the extraction team's health and safety and those working near extraction areas. You must create and maintain an environment where solvents are not inhaled or have the possibility to be exposed to an ignition source.

For hydrocarbon extraction, the area where extraction occurs should have a laminar airflow of a minimum of 70 Cubic Feet per Minute (CFM); the CFM describes a volumetric flow of air per minute. This ensures that if there is any gas present in the room, that is it evacuated immediately. Extraction work must be conducted in a dedicated and identified area equipped to properly mitigate and manage the potential for harm caused by the manufacturing process.

The area of extractions should be at a Class One Division One (C1D1) Environment. This describes an environment where ignitable concentrations of flammable gases, vapors, or liquids can exist all the time or some of the time under normal operating conditions. Which means the room must be devoid of all ignition sources. Such as:

- Electronics
- Lighters
- Static Electricity
- All metal must be grounded.

SAFE STORAGE OF SOLVENTS

VOLATILE SOLVENTS

The proper storage of all solvents used in the manufacturing process is vital to prevent spillage, loss, or accidental damage from a fire or other catastrophic event. Large amounts of LPG should be stored outside in an approved cage. Any other LPG should be stored in a room that has supported airflow. The solvent cage must be grounded to prevent static ignition. All solvents stored on-site should be disclosed to the local fire department, and all signage visible. This includes no smoking signs and chemical diamonds on all doors leading to the facility.

ALCOHOL

Other solvents, such as ethanol, can be stored inside in a flammable cabinet. The flammable cabinet should be grounded to prevent static ignition. All solvents stored on-site should be disclosed to the local fire department, and all signage visible. This includes no smoking signs and chemical diamonds on all doors leading to the facility.

SAFE DISPOSAL OF SOLVENTS

The disposal of solvents can rarely be done on-site. Contaminated or used solvents should be stored in an approved container. When that container is full, you must contact a "Hazardous Material Disposal" company to come to collect the materials. Solvents cannot be poured down the drain into the city water system. Solvents are also not allowed to be released into the air per NFPA.

Licensees should ensure to receive all receipts from the Hazardous Waste Disposal service provider. These receipts comport that the Licensee has collected hazardous materials and then disposed of them per all local, state, and federal guidelines. Receipts should be maintained with all relevant records and record-keeping policies.

Image 24 - Improperly Stored Emptied Containers

PACKAGING AND LABELING

GENERAL PACKAGING AND LABELING REQUIREMENTS

Packaging and labeling requirements exist for a myriad of quality control and assurance purposes and protect and inform the patient about the safe and proper uses of Medical Marijuana.

For example, labels are required to include instructions for use and dosage amounts to better assist patients in using their medicine. Labels are also required to disclose the Harvest or Process Lot numbers and the License numbers of the Cultivators or Manufacturers involved with producing the final medical marijuana product. This information can be vital if there is a product recall.

Below are the various requirements necessary for Cultivators or Manufacturers to ensure before Medical Marijuana is transferred to a Dispensary.

PACKAGING

All Marijuana and Marijuana-Infused Product must be Packaged in:

- Opaque Containers; and
- Resealable packaging (designed to be difficult for children under five (5) years of age to open but not for adults to use correctly).

LABELING REQUIREMENTS

Labeling may not…

- Include false or misleading information;
- Be designed in any manner to cause confusion between a Marijuana Product and any product not containing Marijuana; or
- Be designed in a way that appeals to a minor.

In addition to these three requirements, Marijuana and Marijuana-Infused Product MUST be sold in containers that are clearly and conspicuously labeled with the following:

- "Marijuana" or a "Marijuana-Infused Product" must be marked in a font size that is at least large as the largest other font sized used on the Package; and
- The required warning statement, "Warning: Cognitive and physical impairment may result from the use of Marijuana." in a font no smaller than seven (7) point font.

All Marijuana and the Marijuana-Infused Product must have a Label present which displays all the following required information (which is expected to be listed in the exact order below):

- The total weight of the Marijuana including in the Package;

- For dried, unprocessed Marijuana, all weights are required to be listed in either grams or ounces; or
- For concentrates, weights are required to be listed in grams.
- For Infused Products, weight must be listed in milligrams of THC.

Following the required weight of the dried unprocessed Marijuana, Marijuana concentrate, or Marijuana-Infused Product, Labels are required to list the Dosage Amounts, the instructions for use, and provide an estimated length of time the dosage will affect the Patient.

Labels are also required to provide the THC, tetrahydrocannabinol acid (THCA), cannabidiol (CBD), cannabidiol acid (CBDA), and cannabinol concentration per dose. These items are to be listed in percentages (%).

Labels must also include an Ingredients List. Ingredients lists are required to have all inactive and active ingredients. This does not include grouping ingredients into categories such as "proprietary blend" or "spices."

All dried, unprocessed Marijuana is required to contain the Cultivation Facility name, which grew and Packaged the unprocessed Marijuana. All Infused-Products must be Labeled with the name of the manufacturer of the Product that produced the Infused-Product.

Labels are also required to contain a "Best if Used By" date.

It is strictly prohibited to have any branding, artwork, or other information or design that obscures any of the information required by regulation.

Lastly, all Marijuana and Marijuana-Infused Products CANNOT make any health benefit claims; but health warnings are permissible under current regulations.

ADDITIONAL MANUFACTURING REQUIREMENTS

Licensees should always be prepared for new and emergency regulations to emerge from time to time. The latest example of this comes in the form of Law 195.805 RMSo. Law 195.805 RMSo became effective on August 28, 2020, and stipulates what is and is not permissible for edible product design and packaging.

1. Medical marijuana facilities will be responsible for ensuring they do not design their edible products, edible product packaging, or edible product logos "in the shape of a human, animal, or fruit, including realistic, artistic, caricature, or cartoon renderings." They must also include edible packaging, in certain ways, a specific universal symbol.
    a. The universal symbol is a diamond containing the letters "THC."
    b. The letter "M" located under the "THC" within the diamond, to signify that the product is for medical purposes
2. The Department must promulgate rules prohibiting edible products designed to appeal to minors and regulations, establishing a process for pre-approval of development, package, and label design.

The Department will now begin to review all products for anything that could appeal to minors. If you have received guidance on this in the past, now is an excellent time to re-review anything that is in the shape of a human, animal, or fruit.

PACKAGING AND LABELING CHECKLIST

Please use the provided checklist below to help ensure that your Product Label satisfies all regulatory requirements.

PACKAGING

- Opaque packaging.
- Child-resistant, resealable packaging.

LABELING

- "Marijuana" or "Marijuana-Infused Product" is included in a font size that is at least as large as the other font sizes used (Static).
- It contains the required warning statement: "Warning: Cognitive and physical impairment may result from the use of Marijuana." in a font no smaller than seven (7) point font (Static).
- The below information presented in the following order:
    - The total weight of the Marijuana including in the Package (Static);
    - For dried, unprocessed Marijuana, all weights are required to be listed in either grams or ounces; or
    - Concentrates only: The weight is required to be listed in grams.
    - Infused Products only: The weight must be listed in milligrams of THC.
- Dosage Amounts (Static).
- Instructions for Use (Static).
- The estimated length of time the dosage will affect (Static).
    - Active Cannabinoids (Static):
        - THC
        - Tetrahydrocannabinol Acid (THCA);
        - Cannabidiol (CBD);
        - Cannabidiol Acid (CBDA); and
        - Cannabidiol concentration per dose.
    - Active and Inactive Ingredients List (Static).
- The Name of the Cultivation Facility that grew and Packaged dried unprocessed Marijuana, or the Infused Products Manufacturing Facility Name, produced the Marijuana-Infused Product (Static).
- "Best if Used By" date (Dynamic).
- The Label does not make health benefit claims or false statements (Static).
- The Label and packaging do not:
    - Contain graphics or art that would appeal to minors (Static);
    - Include false or misleading information (Static);

- Be designed in any manner to cause confusion between a Marijuana Product and any Product not containing Marijuana (Static); or
- Be designed in a way that obstructs the required information (Static).

- Patient Name (Dynamic)

EDIBLE AND INFUSED PRODUCTS

Edible product packaging and product logos cannot be:

- In the shape of a Human;
- In the shape of animals; and
- In the shape of a fruit.

This includes realistic, artist, caricature, or cartoon renderings of the above-listed items.

Universal Symbol: The Universal Symbol shall be placed on the front of the package in red and white print and shall measure one-half inch by one-half inch from point to point. This includes, "each package, or packages with or within a package, containing an edible marijuana-infused product with ten or more milligrams of THC shall be stamped with a Universal Symbol for such products."

This includes

- A diamond containing the letters "THC"; and
- The letter "M" is located under the "THC" within the diamond to signify that the product is for medical purposes.

TRANSPORTATION FACILITY OPERATORS

The transportation of medicinal cannabis is an incredibly important process; it is literally how the industry gets around! Whether you are transporting products to a cultivation facility, a manufacturing facility, a testing facility, a dispensary, or to a qualified patient, you must guarantee a safe and complete delivery every time.

The Department has enacted strict regulations surrounding the transportation of cannabis. For example, all employees of a Transportation Facility operator must be fully trained in the facilities' operational processes and procedures to avoid performing job duties incorrectly. In this example, incorrect transfers may have to be sent back to the originating facility, resulting in a loss of time and money.

Image 25 - City Highway

Furthermore, non-compliant transfers may result in a violation or a fine, and operators are required to know how to make permissible transfers of regulated medical marijuana. This is just one of the many reasons why all employee agents need to perform job duties correctly.

The transportation of cannabis is a complicated process that needs to be adequately conducted every delivery. Transporting cannabis is different than transporting most goods. The state authority heavily regulates the transportation of marijuana. You must be able to prove where any medical marijuana affiliated with your license is located, even while in transit. Remember, marijuana is still illegal under Federal Law and within Missouri without a proper Medical Marijuana license. If local authorities pull over a delivery driver, there is a chance of them being arrested for having possession of a class one substance.

Transportation may be provided internally by an employee of the licensed facility or a third-party transportation service provider. For-hire transportation companies are convenient for your business as they remove the operational component of transporting medical marijuana between premises. Transportation service providers bear the burden of providing compliant transportation services; however, it is the responsibility of cultivators and manufacturers to ensure compliance with regulatory requirements like packaging and labeling.

Transportation service providers are at the highest risk for robbery, theft, and diversion of cannabis products. This is due to the large amount of medical marijuana carried in the vehicle. Another reason there is a heightened threat to transportation service providers is that often drivers have large sums of cash in the vehicle. This issue is the product of a larger problem: Banking access and is the topic for another time. Operators must ensure every step is taken to

minimize the risks associated with transportation services to ensure your employees' health and safety and the products they transport.

OPERATIONAL REQUIREMENTS

The Department has established that Medical Marijuana Transportation Facilities are facilities "certified by the department to transport marijuana to a qualifying patient, a primary caregiver, a medical marijuana cultivation facility, a medical marijuana-infused products manufacturing facility, a medical marijuana dispensary facility, a medical marijuana testing facility, or another medical marijuana-transportation facility."

Figure 6 - Kansas City, Missouri Skyline

However, operators of Transportation Facilities do not merely deliver medical marijuana between two physical locations. Scratching the surface, it is easy to see that transportation facility operators have more on their plate than just moving product between two points. Transportation service providers are responsible for ensuring the quality of the product in their possession, handling large sums of cash, ensuring all medical marijuana is delivered to a valid patient or caregiver, all while facing the threat c very day.

Because of the unique challenges that transportation facility operators face, the Department has established regulatory requirements operators must satisfy to remain certified. The Department requirements are as follows:

- Provide adequate employee training.
- Transport all inventories within twenty-four (24) hours.
- Physically located further than 1,000 feet from schools or places of worship.
- Vehicle delivery requirements.

TRAINING REQUIREMENTS

Employee training is the cornerstone of every operation; regardless of facility type and transportation, facility operations are no different. Employee agents need to be able to perform a variety of tasks, both electronically and physically. The employee agents must also be aware of the regulations that pertain to their job functions. This way, they can solve complex issues within the rules set by the state.

JOB SPECIFIC TRAINING

At the time of licensure, all transportation facilities were required to submit to the Department a company organization chart that defined employee job titles and their access levels at the licensed facility. This org chart is to act as the driving force for establishing employee roles and

responsibilities. With employee roles and responsibilities set, employees know how to "stay in their job lanes" to successfully and adequately complete their job duties.

Employee training should be conducted at the time of hiring during the employee onboarding phase. All employee training should be documented and logged in the employee's folder. For best practice, training documentation should include the trainee's name and signature, the trainer, the date(s) of training, and the training materials used.

Per the Department, rule 19 CSR 30-95.100(2)(A), transportation facility operators are required to ensure employees are adequately trained in the following areas of the operation:

- Security measures and controls.
- Proper use of the required statewide seed to sale inventory tracking system,

There is also always a chance of robbery. All employees should be given the tools needed by the company's ownership to execute their job to the best of their ability, and the best tool is training. Adequate training in transportation is necessary for the safety of the employee making the delivery.

Without proper transport, your product cannot reach the consumer. The loss of product and payment will occur if the deliveries are not conducted properly. Making a delivery can go wrong in many ways. It could be as simple as a package being excluded from the transportation manifest. Or it could be something as serious as a robbery. The employees involved with the delivery must be trained to handle any situation that may arise. All incorrect transfer of products will have to be immediately returned to the originating facility to correct any errors. No changes are permitted once the delivery has begun. If transport is not correctly conducted, violations, fines, and possible facility closure may be imposed.

SECURED MEASURES TRAINING

Transporting Medical Marijuana has a higher risk of theft, robbery, and diversion than other industry functions. One of the reasons is the number of transit packages instead of being in a secured physical building. While the packages are in transit, they are in a less secure area and more prone to be stolen or diverted.

There are three transportation areas in transportation: the most dangerous, shipping, receiving, and in transit. This is because the product is not within a secured area. During these times, there is also the handling of cash. This makes the driver a target for robbery. There are specific security measures and controls that can be taken to ensure safe delivery. Here are some key points to focus on:

- Security Surveillance Systems
    - All cars designated for transportation must have a camera that always watches the driver, passenger compartment, and product compartment. Employees should be trained on how to use this device to prevent the diversion of cannabis.
- In-Transport Security
    - Making sure that the lockbox is always locked.

        - Both product and cash lockbox
    - The delivery driver must always carry a working phone.
        - The employee should always be able to call 911 in the event of a robbery or traffic accident.
    - The delivery driver must be trained for emergencies.
        - Robbery
        - If contacted by a police agency
        - Car accident

METRC AND INVENTORY MANAGEMENT TRAINING

When it comes to transportation METRC is utilized heavily. It is used for inventory tracking, and all transfers must go through METRC. This includes making the transfer in METRC and creating a transfer manifest for the delivery. This tracks the delivery electronically in the METRC system and creates a physical paper trail that can be followed. All deliveries must be accepted in METRC at the time of delivery. METRC does not allow transfers to be created more than 24 hours in advance. Transfer errors are among the most common METRC mistakes and violations. These mistakes can be due to the wrong product or RFID tag being selected for transfer or delivery not being accepted in METRC immediately. These examples are common METRC errors and will invalidate the integrity of your inventory tracking system. Proper training in the transportation specific aspects of METRC will keep operations running smoothly.

- Some of the primary functions to cover in training are these:
    - Transportation Manifests
        - Every transfer must include a Manifest including,
            - Packages being sent
            - The facility that the product originated from
            - The facility or person that it is being delivered to
            - Time of the transfer
            - The name and employee license of the transporter
            - The make, model, and license plate of the vehicle transporting
            - The route of delivery
    - Keeping Transportation Records
        - All transfer manifests must be signed and filed away for a minimum of 5 years.

TRANSPORTATION REQUIREMENTS

The transportation of marijuana requires specific steps to ensure safe and compliant delivery. These steps should be outlined in the transportation facilities' Standard Operating Procedures (SOPs) to ensure safe and compliant deliveries are performed every time. The measures will vary depending on the type of delivery being performed. Deliveries being performed to valid patients or their caregivers will differ in many ways, from deliveries performed to other licensed medical marijuana facility operators.

For best practice, transportation facility SOPs should contain processes and procedures to cover the best practices:

- Perform Pre-Delivery and Receiving Delivery Checks
    - A physical inventory of the delivery container
        - Compare physical count in the shipping container to the transfer manifest provided by METRC,
    - Matching of the RFID tags to the transfer manifest
        - Approving that all packages have the correct RFID tag that matches the transfer manifest provided by METRC
        - Approving that the RFID tags on the outside of the container match the product inside

All employees should follow all state regulations. All non-compliant deliveries must be sent back to the originating facility and corrected before being sent back out. This costs time and money and can easily be avoided. Failing to follow regulations may also result in fines, violations, and even closure of the facility during the investigation. These are some suggestions to think about to help ensure complete delivery.

VEHICLE REQUIREMENTS

The vehicle used for transportation needs to be in working order and follow all compliance regulations. This vehicle used for transportation of Medical Marijuana is your most important tool in making a delivery. For safety reasons, the car needs to be in good repair and functioning properly. If the vehicle were to break down, you would be stranded on the side of the road with product and money. Making you very venerable to traffic accidents and robbery. The vehicle must also be equipped with locks for the safety of the driver. The state of Missouri also requires a few things to be installed in the car as well.

- Vehicles used for transportation services must meet the following requirements:
    - Vehicles must be "Incognito."
    - Vehicles must be equipped with hard-sided Lock Boxes. This makes the product and money much more secure than just being loose in the vehicle. These boxes must be made of smooth plastic so it can be cleaned regularly.
        - A lockbox or locking cargo area for product
        - A lockbox for storing payments
        - A lockbox protecting all security equipment in the car
    - Video Monitoring
        - The driver and passenger compartment must always be on camera
        - Any space carrying product or payment must also be monitored.
    - GPS Tracking
        - The vehicle must have GPS tracking to prevent diversion. This can also be used if the vehicle is stolen and needs to be located by authorities.
- In the interest of best practices, some steps can be taken for an organized transfer. Such as:

- Always using a hard-sided container
  - A cardboard box
  - A locking rigid plastic container
- Attached to the container should be:
  - An inventory of the contents of the container
  - All RFID tags correlating to the product in the container
  - The transfer manifest generated by METRC

DELIVERY REQUIREMENT

A delivery driver must always have all forms of identification on them. This includes their driver's license and their facility agent's identification card. The person making the delivery must always have access to communication (a cell phone) if there are any problems with the delivery, such as robbery or diversion so that the authorities can be alerted. The authorities must be alerted within 24 hours if any illegal activities occur by regulation. For best practice purposes, the authorities should be alerted immediately. The sooner you report these issues, the better. This gives the authorities enough time to provide you with the protection needed. Also, the longer you wait to report criminal activity will directly affect the possibility and time it takes to correct the situation. Some would instead not involve the authorities and handle the situation into their own hands. DO NOT take a situation like a robbery into your own hands. The authorities are there to protect you and help solve the crisis.

It is always also required to have a transfer manifest when making a delivery. There is no such thing as having too many copies of a manifest while the product is in transit. It is common to print three manifests, one to be signed and kept at the originating facility, one to stay attached to the product container at all times signed by the driver, and one copy to be signed and held at the receiving entity. Once the delivery has been made, the route taken must be revised to reflect the actual route taken. The manifest must include:

- Contents of a transfer manifest.
  - The originating facilities license number, name, and address.
  - The date of the transfer
  - The time of transfer, including beginning and ending times.
  - The route of the delivery.

MISSOURI MEDICAL MARIJUANA TESTING REQUIREMENTS

In years past, people seeking relief from their ailments using cannabis had to rely on black market cultivators, who were typically related to drug cartels or other criminal organizations. The black market was not driven by the well-being of its customers but by money and greed. Black markets are not subject to regulatory oversights, which allows those enterprising individuals to cut corners and do whatever they please for the sake of profits.

However, in a regulated market, we can stop these destructive practices and create a regulated and safe market for patients. Cultivators can focus on the quality of the product and make it safer. Cannabis can be viewed as a medicine instead of an illegal drug that was grown without any regulation. However, just like in any industry, there are always a few "bad apples" out there. In a regulated market, operators may elect to cut corners; however, regulatory oversight, such as testing and facility inspections, reduce these incidents from happening and create a framework to recall a contaminated product.

Those of us involved in this industry owe it to the patients to make sure they are consuming the safe medication. Staying on top of testing is essential because word travels fast in this industry. If you are mandated a recall or your product put on hold, this news will reach the entire industry quickly and negatively impact the brand.

Testing Medical Marijuana is required for business, add it regulates the industry's quality medicine. Rule 19 CSR 30-95.070 (4) mandates that every harvest lot and process lot must be tested. This will ensure that all medical marijuana that reaches the shelf is safe for any patient. Medical Marijuana Cultivators and Infused Products Manufacturing facility operators need to have Standard Operating Procedures in place to meet these requirements. If a patient does have a disorder, it could make them extremely ill or even worse. Testing also helps lower the risk of long-term effects. Long time exposure to pesticides and heavy metals can cause serious illness later in life.

TESTING REQUIREMENTS

The Department of Health and Senior Services has outlined a rigorous testing program. All products must meet these requirements to be sold.

Rule 30-95.070 (4)(A) states that testing facilities shall test all lots of medical marijuana produced by cultivation or infused product manufacturing facilities. Testing shall only be performed on the final medical marijuana product equivalent to what will be dispensed to the patient.

Rule 30-95.070 (4)(B) states mandatory testing requirements may only be met through testing of samples collected by the testing facility according to section (3) of this rule. This means cultivators and manufacturers are not able to choose their samples.

Per Rule 30-95.070 (4)(C), marijuana testing facilities may take samples for testing from a plant in any stage of its growth. They may also test anything used in the cultivation process, such as

nutrients. They also may take infused products at any stage and the components of an infused product.

Rule 30-95.070 (4)(D) states that within five (5) business days of collecting a sample, the testing facility shall file a report in the statewide track and trace system detailing all test results and stating whether the lot passed or failed each required test. This report's filing must coincide with or precede any notice of test results to the originating facility.

Per Rule 30-95.070 (4)(E), all products must be tested for THC, THCA, CBD, CBDA, and CBN. These results may only have a deviation of 15% from the mean in concentration throughout the lot.

TESTING ALL LOTS

There are two types of "lots." One is harvest lot, and the other is process lot. Both lots work with each other. A "harvest lot" means a specifically identified quantity of marijuana that is uniform in strain, cultivated utilizing the same growing practices, harvested within a seventy-two-hour period at the same location, and cured under uniform conditions.

A "process lot" is any amount of medical marijuana concentrate or extract of the same type and processed using the same extraction methods, standard operating procedures, and harvest lots; or any amount of medical marijuana-infused product of the same type and processed using the same ingredients, standard operating procedures, and harvest lots.

In both instances, every lot that is cultivated or processed must be tested. These lots have been created to be able to track them with ease. If a test fails, it is evident what product needs to be pulled and put on hold.

COLLECTING SAMPLES

Cultivators and Manufacturers are not able to choose and collect their samples. This is to prevent any foul play. It is very tempting to pull the best of a "lot" or use another "lot" that has already passed testing to skew test results. To prevent this, only a testing facility employee can collect testing samples. According to rule 30-95.070(4)(B), mandatory testing requirements may only be met by testing samples collected by the testing facility.

SAMPLING REQUIREMENTS

Rules 30-95.070 (3)(A) and (B) discuss the sampling requirements needed for the required testing. As stated above, the collection of the samples is to be done by the testing lab. Rule (A) says that sampling and testing medical marijuana shall be done at the lot level. This ensures that each product receives testing and helps track any failed lots to be put on hold.

Rule (B) states that sampling and testing each harvest lot or process lot shall be conducted with representative samples. There is the assurance that all lots are adequately assessed for contaminants and that the cannabinoid profile is consistent throughout. This rule is essential because a batch lot can vary significantly throughout its entirety. The best results reflect the lot as a whole.

HARVEST LOT AND DRY, UNPROCESSED MEDICAL MARIJUANA SAMPLING

For dried unprocessed marijuana, the sample size is based on the size of the lot that it is being pulled from. As stated in 19 CSR 30-95.070(3)(B)(1), "the maximum amount of marijuana from which a sample may be selected is fifteen pounds (15 lbs.), and a minimum of zero point five percent (0.5%) of a harvest lot will be sampled for testing." Remember, only Facility Agents from a Licensed Testing Facility are permitted to collect samples. It is strictly prohibited to direct their sampling process or influence it in any capacity.

Image 26 – Medical Marijuana Flower

PROCESS LOT SAMPLING: CONCENTRATES

Concentrate sampling units are much more straight forward. Much like unprocessed marijuana, the samples taken should represent the batch. It is tempting to take the most pristine sample possible to skew testing results in your favor. But it is the manufacturer's responsibility to give the most accurate test results possible to the consumer. This is important with concentrates as the solvents used can be very harmful to the consumer. As the name implies, it is not only the marijuana that is being concentrated. Things that are also concentrated are solvents, pesticides, mycotoxins, and any contaminants in the starting material.

Image 2 – Medical Marijuana Concentrate

As stated in 19 CSR 30-95.070(3)(B)(2), this is the chart used by the state to determine the sampling size.

Process Lot Weight		Sample Increments Required (1 ± 0.2 g)
Pounds	Kilograms	
0 – 0.50	0 – 0.23	4
0.51 – 1.5	0.24 – 0.68	8
1.51 – 3.00	0.69 – 1.36	12
3.01 – 6.00	1.37 – 2.72	16
6.01 – 10.00	2.73 – 4.58	20
10+	4.58+	32

PROCESS LOT SAMPLING: INFUSED PRODUCT

Marijuana-infused products must be tested for multiple reasons. One is for contaminants so that nobody contracts nay sickness from anything that may have gotten into the batch. The other is potency. If the potency of the product is incorrect, this could cause one of two issues. If your product does not reach the potency level placed on the package, the consumer will not receive any medical benefits. If the potency is higher than the package claims, this can result in an overdose. Although marijuana overdose is not deadly, it can cause violent sickness and a hospital trip.

Image 3 - Marijuana Infused Edibles

As stated in 19 CSR 30-95.070(3)(B)(3), this is the chart used by the state to determine the sampling size for infused products.

Units for Sale	Sample Increments
2-15	2
16-50	3
51-150	5
151-500	8
501-3,200	13
3,201-35,000+	20

REQUIRED TESTS

OVERALL POTENCY TESTING REQUIREMENTS

All products require a potency test before it can be transferred for sale. Correct potency results are essential, so the consumer can dose their medication as needed. As mentioned before, an overdose is possible but can easily be avoided by providing the best results possible. The cannabinoids required to be tested are:

- Delta-9 tetrahydrocannabinol (THC)
- Tetrahydrocannabinol acid (THCA)
- Cannabidiol (CBD)
- Cannabidiolic acid (CBDA)
- Cannabinol (CBN)

OVERALL MICROBIAL TESTING REQUIREMENTS

Cannabis products can be contaminated in several ways. Contamination can happen at any time of the product being made. It could be a product used on the plant that is not allowed,

environmental, or even unwashed hands by an employee. Therefore, the Department has set certain limits to try and cut down on any contamination. One of the more common contaminants is microbial contaminants. The state requires all products to be tested for:

- A mycotoxin concentration, including aflatoxins and ochratoxin A, of greater than 20 micrograms per kilogram.
- Pathogenic E. coli or salmonella concentrations detectable in 1 gram.
- Pathogenic Aspergillus *species A. fumigatus, A. flavus, A. niger*, or *A. terreus* detectable in 1 gram.

OVERALL BANNED ANALYTE TESTING REQUIREMENTS

The Department of Health and Senior Services has provided a list of chemicals not permitted for marijuana use. This list has been made because of the health issues that they may cause. Failing for these chemicals will result in a recall and destruction of the entire batch. Also, if plant material that contains these chemicals are extracted, it will concentrate them much. All products must test for these chemicals and meet the required levels.

Banned Analytes	Chemical Abstract Services (CAS) Registry number	Action Limit (ppm)
Abamectin	71751-41-2	> 0.5
Acephate	30560-19-1	> 0.4
Acequinocyl	57960-19-7	> 2
Acetamiprid	135410-20-7	> 0.2
Aldicarb	116-06-3	> 0.4
Azoxystrobin	131860-33-8	> 0.2
Bifenazate	149877-41-8	> 0.2
Bifenthrin	82657-04-3	> 0.2
Boscalid	188425-85-6	> 0.4
Carbaryl	63-25-2	> 0.2
Carbofuran	1563-66-2	> 0.2
Chlorantraniliprole	500008-45-7	> 0.2
Chlorfenapyr	122453-73-0	> 1
Chlormequat Chloride	7003-89-6	> 0.2
Chlorpyrifos	2921-88-2	> 0.2
Clofentezine	74115-24-5	> 0.2
Cyfluthrin	68359-37-5	> 1
Cypermethrin	52315-07-8	> 1
Daminozide	1596-84-5	> 1
DDVP (Dichlorvos)	62-73-7	> 1

Diazinon	333-41-5	> 0.2
Dimethoate	60-51-5	> 0.2
Ethoprophos	13194-48-4	> 0.2
Etofenprox	80844-07-1	> 0.4
Etoxazole	153233-91-1	> 0.2
Fenoxycarb	72490-01-8	> 0.2
Fenpyroximate	134098-61-6	> 0.4
Fipronil	120068-37-3	> 0.4
Flonicamid	158062-67-0	> 1
Fludioxonil	131341-86-1	> 0.4
Hexythiazox	78587-05-0	> 1
Imazalil	35554-44-0	> 0.2
Imidacloprid	138261-41-3	> 0.4
Kresoxim-methyl	143390-89-0	> 0.4
Malathion	121-75-5	> 0.2
Metalaxyl	57837-19-1	> 0.2
Methiocarb	2032-65-7	> 0.2
Methomyl	16752-77-5	> 0.4
Methyl parathion	298-00-0	> 0.2
MGK-264	113-48-4	> 0.2
Myclobutanil	88671-89-0	> 0.2
Naled	300-76-5	> 0.5
Oxamyl	23135-22-0	> 1
Paclobutrazol	76738-62-0	> 0.4
Permethrins*	52645-53-1	> 0.2
Prallethrin	23031-36-9	> 0.2
Phosmet	732-11-6	> 0.2
Piperonyl_butoxide	51-03-6	> 2
Propiconazole	60207-90-1	> 0.4
Propoxur	114-26-1	> 0.2
Pyridaben	96489-71-3	> 0.2
Pyrethrins+	8003-34-7	> 1
Spinosad	168316-95-8	> 0.2
Spiromesifen	283594-90-1	> 0.2
Spirotetramat	203313-25-1	> 0.2
Spiroxamine	118134-30-8	> 0.4

Tebuconazole	80443-41-0	> 0.4
Thiacloprid	111988-49-9	> 0.2
Thiamethoxam	153719-23-4	> 0.2
Trifloxystrobin	141517-21-7	> 0.2
Spirotetramat	203313-25-1	> 0.2
Spiroxamine	118134-30-8	> 0.4
Tebuconazole	80443-41-0	> 0.4
Thiacloprid	111988-49-9	> 0.2
Thiamethoxam	153719-23-4	> 0.2
Trifloxystrobin	141517-21-7	> 0.2

HEAVY METAL TESTING REQUIREMENTS

The testing for heavy metals in marijuana is a significant step to protect patients. This is because of the possibility of long-term health effects of consuming heavy metals. When the plant absorbs heavy metals, it stores them, and they are released when the product is finished. The Department of Health and Senior Services has created testing requirements for the following heavy metals.

Metal	Failure Level for Medical Marijuana (Meant for Inhalation) (ppm)	Failure Level for Medical Marijuana-Infused Products (ppm)
Inorganic Arsenic	> 0.2	> 1.5
Cadmium	> 0.2	> 0.5
Total Chromium	> 0.6	> 2.0
Lead	> 0.5	> 0.5
Mercury	> 0.1	> 3.0

RESIDUAL SOLVENTS TESTING REQUIREMENTS

On October 9, 2020, the Department of Health and Senior Services issued a statement excluding dry unprocessed marijuana from residual solvent testing. That still leaves both marijuana concentrates and marijuana-infused products to be tested for solvents. Residual solvents left in products will make consuming the products undesirable, but there are health risks involved. Solvents such as hydrocarbons can build up in your body and cause long term health effects. The state has set safe limits for residual solvents in marijuana products.

Solvent	Chemical Abstract Services (CAS) Registry number	Failure Level for Medical Marijuana (Inhalation) (ppm)	Failure Level for Medical Marijuana-Infused Products (ppm)
1,2-Dichloroethane	107-06-2	> 2	> 5
Acetone	67-64-1	> 750	> 5000
Acetonitrile	75-05-8	> 60	> 410
Benzene	71-43-2	> 1	> 2
Butanes (all isomers)	106-97-8	> 800	> 5000
Chloroform	67-66-3	> 2	> 60
Ethanol	64-17-5	> 1000	> 5000
Ethyl acetate	141-78-6	> 400	> 5000
Ethyl ether	60-29-7	> 500	> 5000
Ethylene Oxide	75-21-8	> 5	> 50
Heptane	142-82-5	> 500	> 5000
Hexanes (all isomers)	11054-3	> 50	> 290
Isopropyl alcohol	67-63-0	> 500	> 5000
Methanol	67-56-1	> 250	> 3000
Methylene chloride	75-09-2	> 125	> 600
Pentanes (all isomers)	109-66-0	> 750	> 5000
Propane	74-98-6	> 2100	> 5000
Toluene	79-01-6	> 150	> 890
Trichloroethylene	108-88-3	> 25	> 80
Total Xylenes (ortho-, meta-, para-)	1330-20-7	> 150	> 2170

DISPENSARY FACILITY LICENSING

Dispensaries are the culmination of months of hard work to cultivate, harvest, dry, cure, and then possibly extract and manufacture a patient's medical Marijuana. Dispensaries are where the rubber meets the road in the Medical Marijuana industry. They are where Patients come to gain insights to seek relief from what ails them.

Dispensaries also serve as the front line for preventing the abuse and misuse of Medical Marijuana and mitigating Medical Marijuana diversion outside of the regulated market. Facility Agents who interact with Patients and their caregivers are there to educate, inform, and assist patients with their specific needs.

It is not only vital for a Dispensary Agent to be well-informed regarding the Medical Marijuana they have available for patients; it is also of the utmost importance that all Facility Agents at a Dispensary are informed of the rules and regulations that govern all their actions while on the Licensed Premises.

Missouri Medical Marijuana Dispensary Facility Operators are required to follow the rules established for a retail setting intended to manage sales of medical Marijuana to Qualifying Patients or Primary Caregivers. These requirements include compliance with, but not limited to, the following:

- Employee training requirements.
- Provide patient education materials.
- Account for every transaction.
- Report any theft or attempted theft.
- Be designed in a specific manner.
- Sell only medical Marijuana in its final, ready for consumer state, which has passed regulatory testing requirements.
- Transportation and transfer of medical Marijuana.
- Proper storage.
- Sales limitations and equivalency standards.
- Food safety standards (if selling edible marijuana products).

DISPENSARY EMPLOYEE TRAINING

Medical Marijuana Dispensary facility employee training, at a minimum, must include the following areas outlined by the Department:

- The use of security measures and controls to prevent the diversion, inversion, theft, or loss of Marijuana.
- The use of the Statewide Track and Trace System.
- Emergency responses include severe weather, fire, natural disasters, and other unauthorized intrusions.
- The confidentiality standards for information related to the medical use of Marijuana per the Health Insurance Portability and Accountability Act of 1996, better known as HIPAA.

- The procedures for verifying the identity and purchase limitation information for Qualified Patients or Primary Caregivers.
- The differences in the effects and effectiveness of Medical Marijuana strains available for purchase at the Dispensary and their use methods.
- The methodology used for recognizing signs of Medical Marijuana abuse in Patients.

Each Dispensary facility must ensure that employees receive appropriate training and retain training records to document the required training to satisfy Department Dispensary facility employee training requirements. Trained employees will help ensure that all regulatory compliance needs are satisfied and that the operation's doors remain open.

CUSTOMER PATIENT EDUCATIONAL MATERIALS

Medical Marijuana Dispensary facility customer Patient educational materials, at a minimum, are required to contain the following information and be made available at the licensed facility.

- Local resources for concerns about addiction and the phone numbers for the Substance Abuse and Mental Health Services Administration (SMAHSA) National Helpline.
    - Phone Number: 1-800-662-HELP (4357)
- Information about the different Marijuana strains available at the Dispensary and the effects of the different strains.
- Information about the effectiveness of the various methods, forms, and routes of administration of Medical Marijuana.
- Information about the potential risks and possible side effects of Medical Marijuana use, including the risk of poisoning and the phone number for the closest poison control center.
- Information prohibiting the consumption of Medical Marijuana in a public place.
    - The Department defines a "Public Place" as "any public or private property, or portion of public or private property, that is open to the general public including, but not limited to, sidewalks, streets, bridges, parks, schools, and businesses.

DISPENSARY FACILITY REPORTING REQUIREMENTS

Missouri Medical Marijuana Dispensary facilities are required to report any incident of theft or attempted theft of Medical Marijuana to the Department within twenty-four (24) hours of the experience. While Marijuana remains federally illegal, dispensaries will remain a target for criminal activities. All incidents, regardless of how minor, must be reported to the Department.

DISPENSARY FACILITY DESIGN AND STAFFING REQUIREMENTS

Medical Marijuana Dispensary facility and staffing operations must be designed with the following accomplishments per the Department.

- Only one (1) entry/exit access point for the public, qualified Patients, or Primary Caregivers to enter or exit the facility and where facility agents must screen individuals for qualifying Patients or Primary Caregivers status.

- Note: No Medical Marijuana may be accessible in this area of the licensed facility.

- Permitting only Qualifying Patients or Primary Caregivers, and if requested by a Qualifying Patient, up to two (2) additional persons to support the Qualifying Persons, enter the facility beyond the one entry/exit access point area.
- Any Limited Access Area where Medical Marijuana is accessible at the facility may only allow access to Patients or Primary Caregivers n a number equal to or less than the number of facility employees available to service those individuals at any given time.

DISPENSARY FACILITY STORAGE

The storage of Medical Marijuana must be in an approved location of the Dispensary facility as indicated on the Licensed Premises Diagram, or at an offsite warehouse that meets minimum requirements established by the Department.

OFFSITE WAREHOUSE-STORAGE REQUIREMENTS

Per Rule 19 CSR 30-95.080(2)(I)(2), the Department requires each offsite warehouse storage facility meet all security requirements, not be within 1,000 feet of any existing elementary or secondary school, and be approved if the controlling entity qualifies as an owner of multiple licenses (see Rule19 CSR 30-95.040(3(C)).

DISPENSARY FACILITY FOOD SAFETY REQUIREMENTS

Medical Marijuana Dispensary facilities that sell ingestible Medical marijuana products must comply with the applicable food safety standards established by Rule 19 CSR 20-1.025. This includes appropriately storing any edible marijuana-infused product properly so that it does not spoil or become contaminated.

DISPENSARY FACILITY TRANSACTION REQUIREMENTS

Medical Marijuana Dispensary facilities must receive each transaction order directly from the qualifying patient or their primary caregiver. Requests may only be made in person, by phone, or online. It is not permissible, under current regulations, to receive orders from third-party technology service providers or any other unauthorized form.

When the transaction order is being placed, the Facility Agent's responsibility is to use the Track and Trace System (METRC) to verify the Qualified Patient or Primary Caregiver is authorized to purchase medical marijuana in the amount requested. Before transferring any medical marijuana to a patient or their designated caregiver. In the case of a seed purchase, a Patient Cultivation Identification Card must be verified.

PURCHASE LIMITATIONS AND EQUIVALENCY STANDARDS

When checking a patient's purchase amount in METRC, it is essential not only to remember that qualified patients can purchase up to four (4) ounces of medical marijuana, or the equivalent in

a month and know-how that purchase limit translates to marijuana concentrate and infused products. Thankfully, the Department has defined this for us!

As a Dispensary Facility Agent, you will be required to perform "Budtender Math" as part of your day to day operation. "Budtender Math" is the affectionate nickname given to equivalency standards. Missouri has adopted its form of equivalency standards, which it has dubbed Missouri Marijuana Equivalency Units, or MME for short.

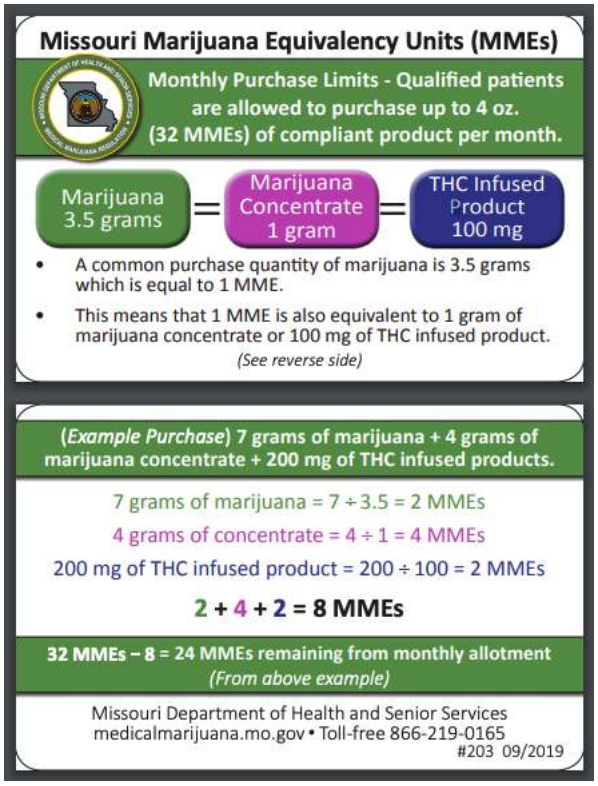


Figure 7 - MMEs

The Department has provided the above business card print out as a resource on its website. This equivalency standard is not defined in the general rules and should not be overlooked by Dispensary Facility Operators. Selling quantities of medical marijuana beyond the possession limit may result in administrative action against the Licensee. That is why it is essential always to know your "MMEs."

3.5 Grams of Unprocessed Marijuana	=	1 Gram of Marijuana Concentrate	=	100 Milligram of THC in an Infused Product
28 Grams / 1 Ounce of Unprocessed Marijuana	=	8 Grams of Marijuana Concentrate	=	800 Milligram of THC in an Infused Product

The good news is that all the Seed-to-Sale tracking systems used in conduction with the Track and Trace system should have a built-in feature, making performing the "Budtender Math" a breeze.

CHECKING CREDENTIALS

At the point of sale, whether in the Dispensary or during a Delivery, the individual presenting themselves as the medical marijuana patient or the qualified caregiver is required to have the credentials verified before physically transferring them Medical Marijuana. Per Rule 19 CSR 30-95.080 (2)(C)(4), this means affirming the patient or primary caregiver's identification card, a government-issued ID, and, in the case of patient purchasing seeds, a patient cultivation identification card.

CHECKING PRESENTED IDENTIFICATION

1. Checking the Expiration Date
    a. This is something that may be forgotten or simply glossed over when checking an identification. This should be the first thing done to perform an ID check because if the presented identification is expired, it is invalid. There may be no sales made to the presenter under any circumstances.
2. Check the Date of Birth
    a. Do the math! Always ensure that the Date of Birth on the presented identification indicates that the presented is of legal age to purchase Cannabis (21+ for retail and 18+ for medical).
3. Check the Picture and the Presenters Physical Appearance
    a. Compare the picture to the person in front of you. Does this information on the ID (hair color, eye color, height, sex, etc.) match the person presenting the ID? Be sure to spend at least 15 – 30 seconds making these comparisons.
4. Check the Rest of the ID
    a. Look at the physical appearance of the presented identification. Check to see if it has a barcode, magnetic stripe, and other security features commonly used in legal forms of identification. Cross compare the presented identification to the security features found in the ID Checking Guide.
    b. Ask yourself, "Does the identification look 'right?'" Many false IDs look just a little bit off. If you have any doubts, the presented identification is invalid or fraudulent; please ensure that you follow the steps below to identify false IDs.

COMMON ID SECURITY FEATURES

Not all States, Governments, or Agencies use all the below security features. Still, employees of a Store of Center should be aware of all the types of security features commonly used in issued forms of Identification.

ULTRA-VIOLET (UV) IMAGES

Many modern IDs contain words, pictures, and designs on the front or back of valid IDs that are only visible using a UV light source.

GHOST IMAGES

Some states have smaller versions of the identifying picture used elsewhere on the ID and should be somewhat transparent. Fake IDs may have the standard photo reduced and lighted but not "ghosted."

KINEGRAMS

More often used on international passports than State IDs, this feature is like a holographic image. It appears with different colors and patterns depending on the angle the ID is being viewed from.

OPTICAL VARIABLE DEVICE (OVD)

When moved around, this security device feature changes colors depending on the angle, but it is combined with micro-print to be examined by magnification.

LASER LIGHT FEATURE

A laser pointed may be used as a new security feature on a specific point of the ID in which a letter or image will reflect off. It is not a more straightforward method to check as you must use a flat surface and dark lighting conditions to verify this feature.

OPACITY MARK

Another newer feature in which an embedded, tiny, perorated marking is visible through the ID when held up to a light source. The pattern varies from state to state and is an internal feature within the ID that cannot be detected by the sense of touch.

EMBOSSED DATES / INFORMATION

Embossed information or embossed ink raises from the ID like numbers on a credit card. This is a new feature and may alter over time due to natural wear and tear.

BARCODES, DATA CHIPS, AND MAGNETIC STRIPES

Magnetic stripes are among the most common security features containing the ID holder's information and are now programable and easier to copy. States are now using more barcoding and RFID chips to store electronic data.

MICRO PRINTING / NANO PRINTING

Security features involving tiny print cannot be read (or easily duplicated) with the naked eye. This may appear in lines with the ID or as part of images and patterns on the ID. While using a magnifying glass, these features should be identifiable on valid IDs.

HOLOGRAPHIC IMAGES

Holographic images are 3D images that move around or “jump” from the document. For many states, this is a feature that is typically used with the State Seal.

TYPES OF FAKE IDS

COUNTERFEIT IDENTIFICATION

Counterfeit, or "Fakes," are forms of identification that have been produced to copy and imitate real identification. Today, these IDs may be ordered online and arrive in a short amount of time for minors to obtain Cannabis. Always check suspected counterfeit IDS using the ID Checking Guide, using detection equipment, such as a UV light, and verifying available security features are present on the presented identification.

ALTERED IDENTIFICATION

An identification is considered to have been altered when that identification is for the legitimate holder in possession of it. Still, the presented identification has been manipulated with false information, such as date of birth. When a presented ID is suspected to be altered, the checker should look for things such as inconsistency with fonts used, searching for tape, or adhesive residues.

BORROWED IDENTIFICATION

This is the most common form of False Identification. Borrowed identification is when the presenter borrows a government-issued ID from a family member or friend and presents it as theirs. These types of IDs are also the hardest to catch because they are legitimate forms of identification. While inspecting an identification presented to be qualified for the Restricted Access Area suspected to be a Borrowed ID, begin to scrutinize the presented. Ask them questions such as the Date of Birth or Home Address listed on the License. Ask them their Zodiac or Star Sign (if you know them) or present another form of ID, such as a credit card or library card, which shares the same name on their presented identification.

Not all forms of identification are created equal, and they will vary greatly depending on the government or agency which issued it. As such, it is best practice to have a valid and current fraudulent ID Checking Guide. This book will assist in the complex world of all types of IDs and their individualized security features.

CHECKING FOR FALSE OR FRAUDULENT IDENTIFICATION

- Feel the edges and bend the edge of the ID slightly. False IDs are usually poorly laminated and could be peeling. Also, check for dirt at the edges to indicate a laminated ID. Cheap plastic may crack or not bend back into place as easily as a valid ID. Be sure to check for Embossed Features and Smooth Edges.
- Look at the foils or holograms. Turn the ID in the light; any hologram, foils, or background outlines should flash in and out of vision. Verify if any extra features should not be there. Ask yourself, "Does the back of the ID check out?"
- Compare the holder to the ID. Is the holder wearing similar clothing and the same hairstyle?
- Look for a slight difference in facial features. People age and change quickly; if the picture was taken recently, but the issue date was significantly earlier, you need to be suspicious and exercise caution when dealing with the ID holder.
- Check the birth date, expiration date, age restrictions, and photographs.

- Ask the holder for details from the ID, such as zip code, height or weight, ID number, hair/eye color.
    - Use creative question: Year of High School graduation, middle name, replicate the signature;
    - Ask for an additional photo ID. If lost, stolen, or Transferred, the holder might not have a backup ID.
- Look for signs of anxiety or deceit. If the holder avoids eye contact, asking for a quick check, or looking nervous, be more suspicious.
- Scan the ID if possible. Forged IDs often have real magnetic stripes, but most may not scan and display information. Check with UV light and look for additional security features indicated in the ID Checking Guide.
- Ask for backup. If you are still unsure, say, "I think I need my manager to look at this."

WHAT DO I DO IF THE ID IS FALSE OR FRAUDULENT?

If you have reasonable cause to believe that the ID presented to you is fake, you have the right to confiscate if you are not required to do so if you are not 100% confident or if the situation may be dangerous. Internal policies should be defined around what to do for each store.

If you decide to confiscate False Identification, you must turn the confiscated ID over to the police within 72 hours. Best practice, if security personnel are on-site, alert the security officer so that they may safely detrain the Customer while waiting for police to arrive and confirm the suspected False ID.

The Best Compliance practice is to have an ID book available to check any given identification to its State security features. The MED allows for a burden of proof and affirmative defense if a minor uses a fraudulent ID, and you have an ID book issued within the past three years.

PROHIBITED DISPENSARY FACILITY ACTIVITIES

MARIJUANA PROMOTIONS PROHIBITED

Medical Marijuana Dispensary facilities may not fund a promotional event with Medical Marijuana products. As such, a Dispensary facility may only provide Marijuana that is free of charge if it is entered in the Seed to Sale System per the Department's inventory management standards.

ON-SITE CONSUMPTION PROHIBITED

Medical Marijuana Dispensary facilities may not allow Medical Marijuana consumption on the licensed premises at any time.

PHYSICIAN CONSULTATIONS PROHIBITED

Medical Marijuana Dispensary facilities may not allow Physicians to meet with Patients or Primary Caregivers on the licensed premises and certify qualifying Patients at any time.

PRE-ROLLS

On September 29, 2020, the Department released "*Guidance Letter 8: Product Manufacturing and Pre-Rolls.*" This letter establishes that the Department prohibits Dispensaries from offering a service where they produce a pre-roll for a patient as part of the patient's right to administer medical Marijuana per their desired method. The Department established the following precedents with this letter:

"We understand there were some dispensaries in Missouri that had hoped to offer this service to their customers. While we do not see a specific prohibition in Article XIV on this point, the absence of authority is much more evident for dispensaries; they are not authorized to make anything from medical Marijuana. On the contrary, they must sell medical marijuana or medical marijuana products in their final, tested form. Allowing dispensaries to grind and handle medical Marijuana to the extent necessary to produce a pre-roll, even adding components such as paper and a filter, runs contrary to the intent of testing a product in its final form before it reaches the Dispensary."

From this position statement provided by the Department, it should be clear that under no circumstances should a Dispensary unpackage and pre-packed item to process it be administered to a patient as a provided service.

DISPENSARY FACILITY TRANSFERS

Transfer of Medical Marijuana by a Dispensary facility may not occur unless the Medical Marijuana has been transferred to a Testing facility first for required testing and has passed all required testing.

TESTING FACILITY TRANSFERS

The Dispensary facility may not transport medical Marijuana until all required testing, including cannabinoid profile (THC, THCA, CBD, CBDA, and CBD) and contaminant (microbials residuals, heavy metals, residual solvents, and moisture content) testing results have been passed per the 19 CSR 30-95.070 Testing rules.

DISPENSARY FACILITY TRANSFERS

Transport of Medical Marijuana by a Dispensary facility, after the Marijuana has passed all required testing, may only be transferred to;

- Qualifying Patients or Primary Caregivers
- Dispensary facilities
- Testing facilities
- Manufacturing facilities
- Transportation facilities
- Offsite Warehouse Storage facilities

MEDICAL MARIJUANA SEED TRANSFERS

Medical Marijuana Dispensary facilities may not transfer seeds to a Patient or Primary Caregiver unless they are qualified and authorized via a valid Patient Cultivation Identification Card before the sale of seeds. And seeds may only be sold by a Dispensary facility that has been obtained from a licensed Medical Marijuana Cultivation Facility.

MEDICAL MARIJUANA PATIENT AND PRIMARY CAREGIVER TRANSFERS

Medical Marijuana Dispensary facilities may not sell or transfer Medical Marijuana to a Qualified Patient or Primary Caregiver in amounts more significant than what the individuals are authorized or until their authorized purchase limits have been verified by the Statewide track and trace System.

DISPENSARY FACILITY RETURNS AND REFUNDS

Medical Marijuana Dispensary facilities may accept returns and issue refunds, or credits as needed except when any Medical Marijuana product has been removed from the packaging that it arrived at the Dispensary facility. Further, Medical Marijuana products may not be accepted as a return by the Dispensary facility regardless of whether or not the Medical

Marijuana was removed from the original packaging before the sale by the Dispensary or after purchase to a Patient or Primary Caregiver.

DELIVERY OF MEDICAL MARIJUANA TO QUALIFIED PATIENTS

The commercial transfer of Medical Marijuana to a patient begins when the licensed facility Agent performing the delivery leaves the licensed premises with the medical Marijuana intended for delivery. The delivery is not completed until it has been successfully delivered to the patient or an attempt was made, and Medical Marijuana has been adjusted correctly in the Inventory Management System.

All deliveries of medical Marijuana must be made to a physical address within Missouri and must be made in person. Delivery agents are not permitted to travel outside of the State of Missouri while performing delivery duties. For example, suppose an Agent is performing delivery duties near the Kansas City, Missouri area. In that case, they are not permitted to perform Deliveries on the Kansas City, Kansas side of the city. Nor is the Delivery Employee allowed to travel to Kansas City, Kansas, to stop for lunch at their favorite sandwich shop.

Before transferring cannabis goods to patients, the delivery Agent is required to check and verify the identity of the individual before physically transferring Medical Marijuana to the individual. Per Rule 19 CSR 30-94.080 (2)(C)(4): "At the time of sale or delivery, required the production of a qualifying patient or primary caregiver identification card, a government-issued ID, and in the case of medical marijuana seed purchases, a patient cultivation identification card.

Once the patient's identity has been confirmed and verified, it is then permissible to finalize the delivery and physically transfer the Medical Marijuana to the patient. There is no need to collect payment as all payments must be received before the medical Marijuana leaving the Dispensary (subject to refund), per Rule 19 CSR 30-94.080 (2)(C)(3).

While performing deliveries, delivery Agents must follow the most direct delivery route. Once a delivery Agent leaves the Licensed Premises, they must go the most direct route to the first delivery destination. The Delivery Employee is expected to go the most direct route to the second delivery destination from the first delivery destination. This process is repeated until all Deliveries have been completed, at which point the delivery Agent will make their way back to the Licensed Premises.

For best practices, the following Six (6) items should be a part of every delivery:

1. Delivery Inventory Ledger;
2. Delivery Stop Log;
3. Delivery Request Receipt;
4. Copy of Valid License;
5. Government-issued identification (Driver's License); and
6. Facility Agent Identification.

DELIVERY INVENTORY LEDGER

The Delivery Inventory Ledger is a document that should be kept while performing deliveries which identifies all the medical Marijuana currently possessed by the delivery Agent. Delivery Inventory Ledgers should contain the following information:

- Type of Cannabis Good;
- Brand of the Cannabis Good;
- The retail value of the Cannabis Good;
- The corresponding CCTT System Identifier; and
- The weight, volume, or another accurate measure of the type of Cannabis Good.

The Delivery Inventory Ledger must account for each medical marijuana item intended for delivery. Ledgers should be updated as deliveries are successfully performed, and inventories therefore change.

DELIVERY STOP LOGS

All Agents performing deliveries services should maintain a Delivery Stop log, which accounts for each stop they made from the time they left the Licensed Premises to the time they returned to the Licensed Premises. Logs should contain the following information:

- A reason for the stop.
- The time the stop was made.
- The duration of the stop.
- If possible, a physical address or approximate location of where the stop was made.

Delivery Stop Logs should be turned in upon returning to the licensed premises. While performing delivery duties, Agents should never stop for any other reason than complete a delivery, take necessary breaks to rest or fuel the delivery vehicle, or receive emergency vehicle maintenance or repair. All these instances should be recorded in the Deliver Stop Log if they occur.

DELIVERY RECEIPT

Licensees should always prepare a delivery receipt for each delivery performed. Delivery Receipts should contain the following information:

1. The name and address of the Licensed Dispensary.
2. The first name and Facility Agent Identification Number of the employee performing the delivery.
3. The first name and Facility Agent Identification number of the employee preparing the order for delivery.
4. The Patient Number and their first name.
5. The date and time of the delivery request.
6. A detailed description of all medical Marijuana requested for delivery. For best practices, this should include the following:

   a. The type of Medical Marijuana.
   b. The brand of Medical Marijuana.
   c. The retail value of Medical Marijuana.
   d. The corresponding METRC number.
   e. The weight, volume, or another accurate measure of the type of Medical Marijuana.
7. The total amount paid for delivery. Remember, all deliveries must be prepaid!
8. Upon delivery, the date and time the delivery was made.
9. A signature from the patient confirming receipt of their medical Marijuana.

Once the qualified patient receiving the delivery has signed and the delivery date and time have been added to the Delivery Receipt, the delivery Agent should then provide the patient with either a physical or digital copy of the completed Delivery Receipt.

RESPONSIBLE VENDING

It is crucial to give patients and their designated caregivers the best advice possible for their medical marijuana. Many patients may be new to the world of regulated medical marijuana and might not know how to handle all the options available to them in a regulated market. Our responsibility as an industry is to promote the safe and responsible use of regulated medical marijuana to create happy and well-informed patients and their designated caregivers.

In doing so, we also reduce the likelihood of misusing and abusing medical marijuana. In the interest of lowering product liability and risk, it is essential to properly educate patients and their designated caregivers and give credible and reliable information to both through educational materials.

PHYSICAL EFFECTS OF MEDICAL MARIJUANA

The physical effects of medical marijuana will vary significantly from product to product and from each phenotype of each unique strain of medical marijuana that exists. Many of these physical effects are derived from the plant "type" of medical marijuana and the form of medical marijuana consumed.

MEDICAL MARIJUANA VARIETIES

The source plant to produce medical marijuana flowers and the medical marijuana-infused product is a part of a small plant family called *Cannabaceae*, specifically the species *medical marijuana Sativa* and the subspecies *medical marijuana Sativa forma Indica*. The critical differences between *C. Sativa* and *C. Indica* include growing characteristics such as height, flower size, flowering time, etc. and attributes in terms of effects at consumption and cannabinoid content. Please see below for a description of each variety.

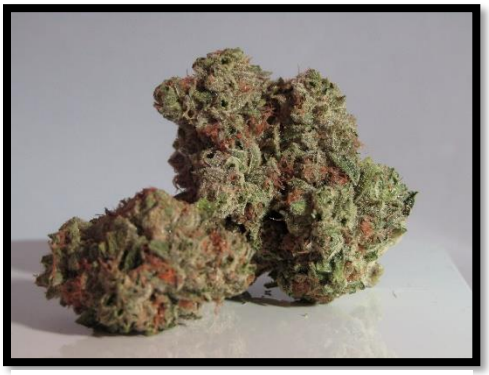


Image 27 - Medical marijuana Flower

SATIVA

Medical marijuana Sativa generally grows taller than Indica varieties, with longer and thinner leaves and are likely to have longer and skinnier flowers or buds. Sativa strains typically contain a higher level of the cannabinoid THC than the cannabinoid CBD more prevalent in the Indica strain varieties. Sativa gives the user a cerebral high and stimulating effects such as a "high" sensation and tends to stimulate hunger, making it popular for use in medicine for eating disorders, daytime pain relief, and other ailments..

INDICA

Medical marijuana Indica tends to grow shorter and bushier than its Sativa relative. Flowers are generally denser and fuller, while leaves are broader and shorter. Indica strains, while still

containing THC, typically have a slightly higher amount of CBD. This gives the user a more sedated and relaxed experience instead of the "high" sensation from Sativa strains. Indica strain characteristics include a calming, soothing, and numbing effect suitable for night use, treatment of insomnia, and to relax or relieve pain.

HYBRID STRAINS

Hybrid strains incorporate the benefits of both Sativa and Indica species. Cultivators have crossbred hybrids to be more Indica or Sativa dominant in their characteristics and effects. Hybrids are commonly dominated by either *Cannabis Sativa* or *Cannabis Indica*, or relatively balanced, a "50/50" strain. Be familiar with each strain's individual characteristics to determine what type of hybrid you are using and its relative effects for users. Most medical marijuana is a hybrid of some sort, a mix of generations of different genetics.

OTHER CONSIDERATIONS

Terpene testing can enlighten your understanding of expected effects on your Customer. Emerging research shows that the "synergistic" effect between cannabinoids and terpenes can create different medical outcomes and medical marijuana patients' experiences. It is essential to understand the impact of cannabinoids and terpenes to gauge the effects anticipated on patients and their designated caregivers alike. For example, Pinene dominant strains with low THC and higher CBD can be more relaxing than energetic limonene, high THC strain.

HEALTH AND SAFETY CONCERNS

The effects of medical marijuana consumption can vary from person to person. Still, as a Responsible Vendor, you need to know and inform patients and their designated caregivers about the health and safety concerns of medical marijuana. Although more research about health and safety concerns of medical marijuana is required, consider the following topics about the effects of medical marijuana use.

NEGATIVE AND NEUTRAL EFFECTS

The negative and neutral effects of higher THC content may include anxiety, feelings of paranoia, a distorted sense of time, random thinking, and short-term forgetfulness. Other impacts of medical marijuana include dry mouth, red eyes, increased heart rate, decreased problem-solving.

MEDICAL MARIJUANA USE AND YOUR LUNGS

There seems to be a popular misconception amongst medical marijuana consumers that medical marijuana smoke is not as detrimental to one's health or lungs as cigarette smoke. This, however, is not true.

Medical marijuana smoke irritates the lungs, has the same cancer-causing chemicals as tobacco, and has been linked with tissue damage in the lungs, increasing lung cancer chances.

Frequent use and consumption of smokable medical marijuana may cause persistent cough, bronchitis, mucus, and wheezing.

Medical Marijuana patients with compromised immune systems or sensitivities to smoke should always avoid consuming medical marijuana with an intended consumption method of inhalation. Patients with these variable conditions should be advised on the alternative options available to administer their medical marijuana. These options include tinctures, transdermal patches, edibles, and other creative products that exist on the market today, such as water-soluble THC or CBD powders.

MEDICAL MARIJUANA USE AND YOUR MENTAL HEALTH

Studies into effects on the mental health of medical marijuana on consumers suggest that daily or near-daily use of medical marijuana can have adverse effects on memory. This includes general forgetfulness and short-term memory loss. Additionally, medical marijuana, especially in high doses, can cause hallucinations, paranoia, and not knowing what is real.

SECONDHAND SMOKE FROM MEDICAL MARIJUANA USE

Secondhand smoke from medical marijuana has the same cancer-causing chemicals as tobacco smoke. Never smoke around children, pregnant or breastfeeding women, or anyone who does not want to be exposed to secondhand smoke.

Image 28 - No Smoking Sign

Furthermore, it is not acceptable to consume regulated medical marijuana in any public space. You do not want to be "that person" and choke somebody out because you decided you needed to light your pre-roll up in your local park. The Department defines a "public place" as "any public or private property, or portion of public or private property, that is open to the general public, including but not limited to, sidewalks, streets, bridges, parks, schools, and businesses."

All medical marijuana patients must take it upon themselves to ensure that their medical marijuana consumption is done in a place and a capacity where it will not negatively impact those around them.

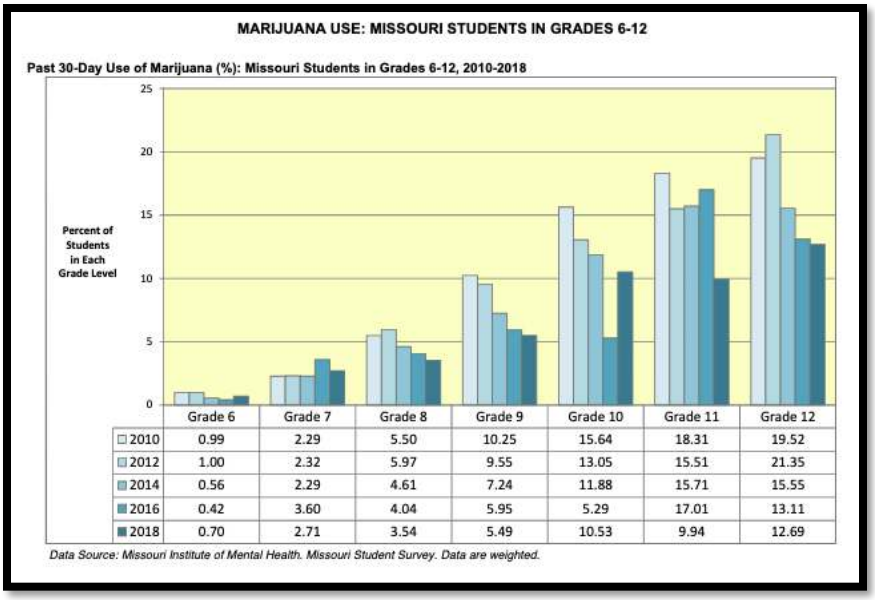
MARIJUANA'S HEALTH EFFECTS ON YOUTH

Youth who use marijuana regularly are more likely to have difficulty learning, memory issues, and lower math and reading scores. Adults should clarify to their children that smoking medical marijuana is for adults only or qualified youth patients.

As with the consumption of alcohol during the adolescent years, the use of marijuana can have detrimental effects on their health and development. Marijuana can impact a youth's ability to learn and remember things and should be avoided while their brain is still developing.

Marijuana use at earlier ages can also lead to addiction. Youth using marijuana also are most likely accessing it through grey or black markets and will have higher chances of having access to other drugs.

The youth also need to be mindful of vaping products containing nicotine, THC, or CDB, or other substances and chemical additives. In recent history, there have been outbreaks across the Country because of vaping associated lung illnesses. Long-term vaping health effects are still unknown currently, and the best advice is for all youth to avoid vaping any black or grey market vaping product.



	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
2010	0.99	2.29	5.50	10.25	15.64	18.31	19.52
2012	1.00	2.32	5.97	9.55	13.05	15.51	21.35
2014	0.56	2.29	4.61	7.24	11.88	15.71	15.55
2016	0.42	3.60	4.04	5.95	5.29	17.01	13.11
2018	0.70	2.71	3.54	5.49	10.53	9.94	12.69

Figure 8 - 30 Day Use by 6 - 12 Grade Students

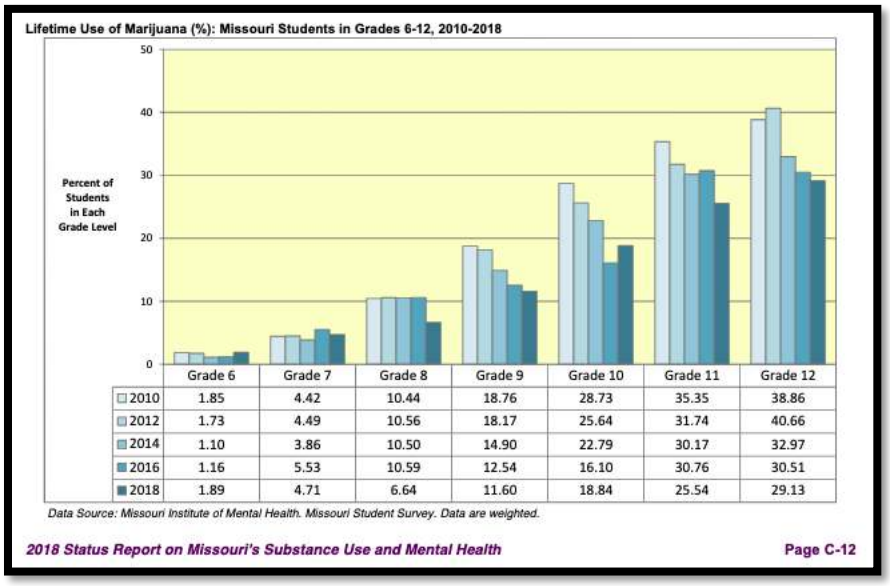


Figure 9 - Lifetime Use by 6 - 12 Grade Students

It is the responsibility of every individual involved in the legal medical marijuana program to ensure that medical marijuana does not deviate from the legal market and enter gray or black markets; which in turn will give the youth and nonqualified individuals of Missouri and elsewhere access to medical marijuana grown under the State's medical program.

IMMEDIATE AND LONG-TERM HEALTH EFFECTS

There are both immediate physical and mental effects felt from consuming Medical Marijuana in addition to long-term health and mental effects from prolonged consumption of Medical Marijuana. Below we will explore

IMMEDIATE HEALTH EFFECTS OF MEDICAL MARIJUANA USE

Medical marijuana use's direct effects may vary depending on product type and consumption method, potency, the amount of medical marijuana consumed, and the frequency of medical marijuana use. Results indicative of medical marijuana use and consumption may include:

- A happy, relaxed, or "high" feeling.
- Slower reactions and hand/eye coordination.
- Distorted perceptions of time and distance.
- Trouble thinking, learning, and remembering.
- Anxiety, panic, or paranoia.
- Faster heart rate.
- Increased blood pressure.
- Less interest in usual activities.
- Increased appetite.
- Dry mouth.
- Red eyes.

- Psychosis — seeing or hearing things that are not real (more common with higher THC) doses.

PLEASE NOTE EFFECTS FROM SMOKING OR INHALING MEDICAL MARIJUANA USUALLY LASTS TWO TO FOUR HOURS AND EFFECTS FROM ORALLY CONSUMING MEDICAL MARIJUANA CAN LAST FROM FOUR TO TEN HOURS.

LONG-TERM HEALTH EFFECTS OF MEDICAL MARIJUANA USE

The following effects may be caused by medical marijuana use:

- Respiratory effects of medical marijuana use:
  - Medical marijuana smoke irritates the lungs, contains the same cancer-causing chemicals as tobacco, is linked to tissue damage, increases chances of developing lung cancer, and may cause a cough, bronchitis, mucus, and wheezing.
- Lung cancer and medical marijuana use:
  - The available research on medical marijuana use and lung cancer is conflicting. Still, we know that the respiratory effects of medical marijuana use (listed above) may impact developing lung cancer.
- Brain and mental health effects of medical marijuana use:
  - High medical marijuana consumption rates can cause memory damage or temporary psychosis (not knowing what is real, hallucinations, and paranoia) while you are under the influence of medical marijuana.

EFFECTS OF MEDICAL MARIJUANA USE WHILE PREGNANT OR BREASTFEEDING

While addressing the topic of medical marijuana use while pregnant or breastfeeding, it is imperative for employees of Licensees always to remember the following facts and information on risks for new or expecting mothers:

- There is no known safe amount of medical marijuana to use while pregnant or breastfeeding
- Regardless of the method of consumption, THC will always get passed to the fetus from the mother. This is irrespective of the type of medical marijuana consumed by the mother.
- Just because medical marijuana use is legal does not mean it is safe during pregnancy or while breastfeeding; it may harm a baby, just like alcohol or tobacco. Smoking medical marijuana in the home or around a baby should not be allowed because breathing in medical marijuana smoke is bad for the mom and baby.
- Just because medical marijuana is "natural" does not make it safe. Not every all-natural substance or plant is harmless –lead, tobacco, and poisonous berries.
- Medical marijuana use while pregnant or breastfeeding for medical reasons is not recommended unless, in exceptional cases, by a medical doctor.

- Medical marijuana use to treat nausea or morning sickness is not recommended, and communication with a healthcare provider is strongly recommended for pregnant women.
- "Pumping and Dumping" is not a solution because THC is stored in fat cells and may still exist in breast milk even after medical marijuana use has stopped.
- Some cannabinoids called endocannabinoids occur naturally in the body and help nerve cells communicate better. THC from medical marijuana is much more robust, however, and can upset the natural endocannabinoid system in both the mom and the baby's body.
- Legal consequences may result from medical marijuana use while pregnant or breastfeeding. Effects of medical marijuana use can make taking care of a baby difficult or dangerous.
- Pregnant women and new mothers are a priority for drug and alcohol treatment, which exists in a nonjudgmental and confidential space.

SAFE STORAGE AND RESPONSIBLE MEDICAL MARIJUANA USE

SAFE STORAGE OF MEDICAL MARIJUANA

Keeping all medical marijuana products locked up and out of sight and reach is vital for preventing accidental consumption by kids, animals, and other unsuspecting people.

Child-resistant packaging containing medical marijuana products should be used even after purchasing from a Retailer. A safe or lockbox is another excellent way to ensure that only select people can access medical marijuana products. Always lock up medical marijuana products, even if kids get older, preventing accidental or intentional medical marijuana use by a child. Medical marijuana products can be mistaken for regular food or candy.

Teach people who cannot read Medical marijuana product labels or ingredients what the Universal Symbol looks like on both the packaging and the actual medical marijuana product (if demarking, applies to product type). Remember to advise patients and their designated caregivers to keep all perishable products adequately stored according to the label.

RESPONSIBLE MEDICAL MARIJUANA USE

Always exercise caution and be responsible while consuming regulated medical marijuana. It is essential to inform patients and their designated caregivers that medical marijuana's responsible use may depend on how or where medical marijuana is used and what the intentions of the Customer are after medical marijuana use. Again, reinforce what the Universal Symbol means when cautioning patients and their designated caregivers against unintended medical marijuana use.

AMOUNT OF TIME TO FEEL IMPAIRMENT

Frequent and infrequent patients consuming medical marijuana are both as likely to feel impairment from consuming medical marijuana. Impairment resulting from medical marijuana

use affects the ability to drive, bike, operate machinery, or perform other safety-sensitive activities. As a responsible vendor, make sure to mention the following information on the amount of time to wait after medical marijuana use and impairment before driving, biking, etc.

Method of Consumption	Product Type	Onset	Duration	Potency
Smoking/Vapor	Trim	1 – 15 Minutes	2 – 4 Hours	4% - 10% THC
Smoking Vapor	Flower	1 – 15 Minutes	2 – 4 Hours	10% - 30% THC
Smoking/Vapor	Concentrate	1 – 15 Minutes	2 – 4 Hours	30% + THC
Edible	Infused Product	30 – 120 Minutes	4 – 10 Hours	1mg – 10mg THC
Liquid Edible	Infused Product	15 – 60 Minutes	4 – 10 Hours	1mg – 10mg THC
Sublingual	Infused Product	10 – 45 Minutes	4 – 10 Hours	1mg – 10mg THC
Topical	Infused Product	10 – 45 Minutes	2 – 4 Hours	As Needed
Transdermal	Infused Product	15 – 60 Minutes	6 – 10 Hours	1mg – 10mg THC

SMOKING AND INHALATION OF MEDICAL MARIJUANA

Image 29 - Smoking a Joint

FLOWER AND TRIM

Vaporizing or smoking medical marijuana flower or trim is a more common consumption method for their designated caregivers. Consumers who inhale flower or trim can expect a quick onset (1 – 15 minutes) and anticipate the effects of the cannabinoids to last anywhere from 2 – 4 hours depending on several factors, including but not limited to tolerance, body type, metabolism.

CONCENTRATE

The production and consumption of medical marijuana Concentrates have exploded in recent years. Those who are not regular medical marijuana consumers might want to exercise caution when consuming regulated medical marijuana Concentrates due to the intense concentration of Cannabinoids, typically 30% - 90%. The onset of concentrates is fast, and medical marijuana patients will feel the full effects within 15 minutes. Duration will usually be 2 – 4 hours; however, those with lower tolerances or who do not consume regulated medical marijuana may feel these effects for up to 6 or 8 hours.

ORAL CONSUMPTION OF REGULATED MEDICAL MARIJUANA

Orally consumed medical marijuana refers to any regulated medical marijuana item consumed by drinking or eating the infused product. Orally consumed regulated medical marijuana often takes longer to feel the effects and can last hours longer than smoking or inhaling medical marijuana. The best advice for any Patient or Customer of orally consumed regulated medical marijuana is to "Start Low. Go Slow."

EDIBLES

Frequent consumers of regulated medical marijuana and those who do not are all too familiar with the classic "Pot Brownie." However, in the regulated medical marijuana world, medical marijuana patients and their qualified caregivers have access to so much more than just brownies. Today's patients or their designated caregivers may select from medical marijuana-infused ice cream, cupcakes, butter, gummies, and anything you can dream up. It is essential to know how to safely and responsibly consume edible medical marijuana to have a pleasant experience.

Typically, the onset for edible is 2 – 4 hours, lasting 8 – 10 hours. Always remember that onset and duration are entirely dependent on tolerance, weight, metabolism, to name a few. Always remember to START LOW AND GO SLOW!

Image 30 - Edibles Education Infographic

Image 31 - Edible Tolerance Infographic

LIQUID EDIBLES AND SUBLINGUAL

Ingested products in liquid form such as sodas, drinks, and other beverages are absorbed through the stomach faster than food items. The onset of effects generally takes a shorter amount of time, like drinking alcohol - 15 minutes to 1 hour. Liquids also digest slightly faster than food items, and therefore onset can happen much quicker/ Effects of liquid edibles and sublingual can last on average from 4 to 10 hours..

TOPICAL APPLICATION

Medical marijuana may also be infused into products intended to be used on the skin. Creams, lotions, massage oils, lip balms, personal lubricants, and bath mixes are examples of products used to relieve local tissue, muscles, and pain. Typically, these products do not enter the bloodstream in enough quantity to cause a psychoactive effect. Topical medical marijuana users generally do not experience a high, so the onset of alleviating effects occurs within 10 to 45 minutes and can last 2 – 4 hours.

Another form of topical application that causes a psychoactive effect is the use of transdermal patches. Transdermal patches deliver medical marijuana slowly into the bloodstream at a local level without evaporating. Transdermal patches' impact may be felt within 15 minutes to 1 hour, and effects generally last 6 – 10 hours..

TRANSDERMAL

Transdermal refers to applying medicine or a drug through the skin, typically using an adhesive patch to be absorbed slowly into the body. Due to the nature of Transdermal regulated medical marijuana, patients and their qualified caregivers should anticipate a slow onset and a longer duration due to the gradual release of the active Cannabinoids.

DRIVING HIGH

All medical marijuana patients and their caregivers need always to remember that driving under the influence of medical marijuana is still driving under the result of a controlled substance. Because a physician recommends medical marijuana, it does not mean that it is now acceptable to operate a motor vehicle, bicycles, e-scooters, or any means of transportation.

All medical marijuana patients should bear in mind that individuals prescribed specific medicines are not permitted to drive or operate heavy machinery. The same goes for all medical marijuana patients: They cannot use vehicles while under their medical marijuana influence.

DRIVING AND TRAVELING AFTER MEDICAL MARIJUANA USE

Anecdotally many medical marijuana consumers may think they are safer drivers while impaired because they drive more slowly while stoned. However, research shows that going while high may increase your risk of a crash. It is important never to drive, bike, or operate machinery while impaired from medical marijuana use.

Like alcohol rules, impairment levels for medical marijuana use while driving has already been established and used by law enforcement to determine if a driver is under the influence of regulated medical marijuana while operating a motor vehicle.

Driving while impaired is illegal, unsafe, and can result in an arrest for driving under the influence (DUI/DWI) charge.

ALWAYS WAIT BEFORE DRIVING!

- *If consuming regulated medical marijuana by smoking or inhalation, wait at least 6 hours for "normal" consumption or longer before driving, biking, etc.*
- *If consuming regulated medical marijuana by smoking or inhaling, wait at least 8 hours if more than average amounts were consumed before driving, biking, etc.*

Responsible Vendors should never encourage driving under the influence regardless of substance. Consumers should be educated to wait for the full duration above, depending on the use method before driving. Always encourage rideshare programs, walking, or public transportation as alternatives to driving once regulated medical marijuana has been consumed.

For example, one should discourage someone who consumed an edible product to operate a motor vehicle within 8 hours after ingestion. Additionally, combining medical marijuana with other drugs, including alcohol, dramatically increases the risk of impaired driving.

Budtenders should also refuse to sell medical marijuana products to medical marijuana patients or their designated caregivers who are already impaired, especially if they are driving. Blindly selling medical marijuana to impaired persons dramatically increases the risk of that Customer using medical marijuana in a manner that puts the safety of others at risk on the road.

RECOGNIZING THE VISIBLE SIGNS OF IMPAIRMENT

Similarly, as you should not sell alcohol to a visually impaired person, you should not sell medical marijuana to a person, obviously under the influence. Each store must minimize the risk of leaving the premises in an impaired state.

Dry or red eyes, impaired motor skills, slurred speech, low balance, and irrational behavior may be signs of impairment. A strong smell of burnt medical marijuana or alcohol could also be a sign of possible impairment. Seek help from co-workers or security personnel in case you are uncertain if the Customer is impaired.

It is all about staying safe. It is best to explain to the Customer that you cannot sell any product to anyone under the influence of any substances and that you have the right to refuse service. Be courteous and ask the Customer to come back when they are no longer impaired. To avoid medical marijuana impairment, it is vital to understand the correct amount of medical marijuana to consume.

RESPONDING TO MEDICAL MARIJUANA OVER-CONSUMPTION

Unintentional or over-consumption of medical marijuana or products can cause adverse health effects and make both adults and children too sick. If there is unintentional or over-consumption of medical marijuana, you should advise all medical marijuana patients and their designated caregivers to immediately contact a medical professional or poison control hotline (1-800-222-1222).

If the reaction to over-consumption or accidental medical marijuana consumption is more severe, call 911 or immediately go to an emergency room. Or if there is any worry or concern about an individual with unintentionally or over-consumed medical marijuana, call for help.

The following symptoms of over-consumption of medical marijuana are like the typical effects of using medical marijuana, but more severe. Symptoms of over-consumption of medical marijuana may include, but are not limited to:

- Extreme confusion, anxiety, panic, or paranoia
- Fast heart rate
- Hallucinations or delusions
- Increased blood pressure
- Severe nausea and vomiting
- Problems with walking, sitting up, breathing, becoming sleepy, etc.

That has been an increase in the number of hospital or emergency room visits due to increased medical marijuana access. A few possible reasons for this may include:

- Mistaking regulated Edible medical marijuana Product for regular food;
- Ignored the potency of a product and personal tolerance; and
- Did not wait for medical marijuana products to take effect before ingesting more fully.

CONDUCT OF THE ESTABLISHMENT

Each establishment and each individual working in the Cannabis industry carries a stake in its future health. An owner wants to continue staying open for business, and each person working for the establishment is interested in keeping themselves employed. This is done by holding everyone involved accountable and conducting business in a professional and compliant manner.

We all have an interest in minimizing the risk of and mitigating possible violations before they occur. Use Best Practices and work together to reduce the opportunity for mistakes. Always remember the following:

- Work with enforcement, not against them. Prove that we can all be responsible vendors.
- Emergency Plans, i.e., record keeping and power outages, Raid/Inspection, Roles, and Responsibilities.
- Policies/Procedures/Handbook for additional employee training and risk mitigation.
- Systemic Checks for ensuring accurate files, records, and overall compliance.
- DO NOT leave doors, chains, and other access restrictions open.
- DO NOT consume any product on-site, including your car.
- DO NOT keep smoking accessories or paraphernalia on your person or premises.
- Be conscious and aware of internal patterns to mitigate diversion and inventory inaccuracies.
- Recall contaminated/tainted products immediately and post these internally to communicate safety risks to consumers on time.

THANK YOU

From all of us at iComply, LLC, thank you for making us your Comprehensive Compliance Training provider. We are honored to be part of your experience and team working towards a fully compliant Regulated Cannabis Industry.

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