

**Missouri Public Utilities  
Annual Conference 2019**

**Medical Marijuana's Impact on the Utility Industry**

**Walter G Wright  
wwright@mwlaw.com**

**MITCHELL | WILLIAMS**

*Mitchell, Williams, Selig, Gates & Woodyard, P.L.L.C.*

# Arkansas Environmental, Energy and Water Law Blog

<https://www.mitchellwilliamslaw.com/blog>

Three posts five days a week  
Arkansas and Surrounding States  
(including Missouri) and federal  
legislation/regulations/judicial decisions

# Missouri Medical Marijuana

- Medical Marijuana was legalized in Missouri in 2018 when voters approved Amendment 2.
- Decriminalizes from a State (Missouri) standpoint certain uses of marijuana.
- Amendment 2 permits Missouri licensed doctors to recommend marijuana for medical purposes for Missouri residents (qualifying patients) with specified illnesses or medical conditions.
- The Missouri Department of Health and Senior Services is required to issue licenses for dispensaries, manufacturing (infused products), and cultivation.

# Missouri Medical Marijuana

- Missouri has previously started its acceptance of applications for identification cards
- 33 states now have some type of authorization
- Missouri's neighbor, Arkansas, had approved a similar measure a few years before.
- 24 Missouri dispensaries are authorized for each of the eight Congressional Districts
- 61 Missouri cultivation facilities are authorized
- 86 infused manufacturing facilities are authorized
- 2,100 facility applications received
- Various criteria used to score applications

# CAVEAT Regarding Legality in Missouri

## NOTE:

- Still Illegal at Federal Level as Schedule I Controlled Substance
  - Obama Policy - would leave states alone unless dispensed close to schools, etc.
  - Trump Policy - Unclear
- U.S. Department of Transportation Guidance Trumps State Law and Prohibits Use of Medical marijuana by those regulated by the federal Hazardous Materials Transportation Act
- Companies Subject to Federal Drug Workplace Act Must Prohibit Use
- OSHA General Duty Clause? (maintain safe work place)

Will Discuss. . .

# Relevance to Municipal Utilities?

- Arguably at least three issues arise in regards to Missouri Municipal Utilities:
  - Significant energy consumption by medical marijuana cultivation facilities
  - Medical marijuana cultivation, manufacturing (infusion) and dispensary use of water and wastewater services
  - Municipal utility employee issues associated with the legal use of medical marijuana (especially in safety/environmentally sensitive positions?)

# Cultivation/Infused Product Facilities Components/Processes

- Extraction of active ingredients from plant materials
- Odor control equipment for producing/growing and or processing (type, quantity, make and model, flow rate); and
- Solvent usage information including Material Safety Data Sheet (MSDS) for each type
- Schematic drawing of HVAC System for facility indicating path of all air flowing through area where growing or processing occurs
- Spec sheets for each type and model of odor control device and fan
- Spec sheet for extraction device
- Solvents used to make extracts/concentrates (to extract oils)
- Residual solvents include butane, hexane, alcohol, and ethanol which are by-products of extraction

# Energy Issues

- A significant topic in states already allowing cultivation is the energy impact of cultivation.
- The Northwest Power and Conservation Council (“NPCC”) states that regional demand from marijuana producers in Idaho, Montana, Oregon and Washington could reach almost 250 MW by 2035.
- 2000-3000 Kilowatt hours of energy per pound of product. (NPCC)
- The publication *Utility Dive* quotes Mr. Pete Rumsey, Executive Vice President of Business Development at Lighting Science, who states:

Cannabis is one of the most energy-intensive industries in the world. Statistics show that one percent of all electricity used in the United States today is used by indoor marijuana growers, to the tune of almost \$6 billion annually.
- The same publication notes that growing four mature marijuana plants consume about as much power as running 29 refrigerators around the clock.



# Energy Issues (cont.)

- Concentration of multiple cultivation facilities in Denver required replacement of transformers to be able to deliver additional energy.
  - i.e., will there be a need to upgrade utility infrastructure in some areas?
- New and projected cultivation facilities are focusing on designs and operational methods that may reduce energy consumption by 40% per plant.
- Why are cultivation facilities motivated regarding energy conservation?
  - Highly competitive industry
  - Margins decreasing
  - Energy is one of the largest cost components for cultivation/infusion facilities

# Energy Issues (cont.)

- Energy is consumed by cultivation activities and processes such as:
  - Intense lighting (10,000 watt grow lights)
  - High pressure sodium
  - Ceramic metal halide
  - Light emitting diode
  - Continuous air conditions (climate control)
  - Intricate ventilation systems
  - Water pumps and purifiers
  - Heaters for drying and curing marijuana
  - Extraction equipment filters
  - State of the art security measures
  - CO2 injection
  - High powered compressors (extraction)

# Energy Issues (cont.)

## Calculation of Energy Use?

- Exact figures (i.e., industry cultivation average) are still somewhat inexact because cultivators are stated to be wary of sharing data for two reasons:
  - 1) Potential federal scrutiny
  - 2) Protect trade secrets in competitive market place
  - 3) Relatively new industry/operations

# Energy Issues (Cont.)

- Addressing increased consumption is complicated by the difficulties utilities/cultivation facilities have encountered trying to fund energy efficiency measures.
- Hampered by the fact that the federal government classifies marijuana as a Schedule I restricted drug.
- Access to certain federal programs may be limited.
- Another factor relevant to energy consumption may be the limits placed on facilities.
- Various types of caps on the size and number of cultivation facilities and/or plants sometimes provide an incentive to grow bigger plants.

# Energy Issues (Cont.)

## Various State Responses?

- Illinois marijuana legislation included energy efficiency requirements:
  - 1) Specifying lighting power density
  - 2) Use of high efficiency HVAC equipment
  - 3) Submission of energy reports
  
- Some utilities in other states are stated to be offering rebate and incentive programs for cultivation which include HVAC and lighting.
  
- Examples include:
  - Sacramento Municipal Utility District (CA);
  - Excel Energy (CO);
  - National Grd. (Mass); and
  - Project Sound Energy (Washington).

# Energy Issues (Cont.)

- The previously cited EQ Report notes:

Undoubtedly, marijuana cultivation will be a game changer for utilities and communities across the country. Yet electric rates can be designed to incentivize energy management in grows, utilities can provide better data on how energy is used, and governments can offer new options for financing efficient equipment and rooftop solar. This emerging challenge thus presents an opportunity to enhance the marijuana industry's access to clean energy, and to encourage the industry to use this energy more efficiently, making their products that much "greener."

# Environmental Issues

- Applicable Missouri/Federal Laws/Regulations of course apply to these facilities.

# Water Use

- Cultivating and processing marijuana is water intensive.
- A facility tapping into a public utility or municipal water line if among a concentration of such facilities could be a material issue in terms of quantity used.

For purposes of producing high marijuana yields influent water may be scrutinized for:

- Total soluble salt
- Proportion of sodium cations
- Excessive concentrations of elements that causes toxicity on ionic imbalance in plants
- Bicarbonate anion concentration as related to calcium plus magnesium cations



# Wastewater

Wastewater utilities will need to evaluate cultivating/infusion facilities' wastewater streams.

- Scrutinize pollutant concentration
  - Nutrient issues (Phosphates and Nitrates)
  - Biocides interfere with treatment
- Facility practices to address potential wastewater issues
  - Available agronomy practices to reduce pollution
  - Minimize/use best practices for reducing solvent usage for processing plant material
  - Recirculating hydroponic system
  - Address/sewer entry points in cultivation rooms

# Wastewater (cont.)

## Infusion/Extraction/Production

- Relevant pollutants?
- Prevent gaseous solvents like carbon dioxide, propane or butane discharging into sewer system wastewater
- Solvents such as hexane, etc., maybe flammable
- Fats, oils, and grease from edible production
- High concentration or improper use of cleaning agents

# Solid/Hazardous Wastes Generated

- Packaging waste
- Plants (including stalks, roots/soil) and unusable marijuana liquid concentrate or extract
- Solid concentrate or extract (used to extract plant oils)
- Examples:
  - Trim and solid plant material used to create an extract
  - Waste solvent
  - Laboratory waste
  - Extract that fails to meet quality testing
  - Used reactants
  - Residual pesticides/fertilizers
  - Cleaning solution
  - Lighting ballasts

# Wastes Generated

- Some material may constitute RCRA Subtitle C hazardous waste.
  - Contact with certain listed hazardous wastes during oil extraction processes
  - By-products resulting from chemical treatment may sometimes become characteristic hazardous waste
  - Pressurized gas cylinders
  - Solvents
  - Mercury containing lamps
  - Out of date pesticides

# Wastes Generated (Cont.)

- Waste management companies are carefully considering how to deal with non-hazardous waste from cultivation/infusion facilities (characterization, profiles, etc.)
- States usually require cultivation/infusion waste mixed with inert material be rendered unrecognizable, unusable, etc. (Missouri rules require grinding and incorporating the medical marijuana plant material with other non-hazardous material so at least 50% non-marijuana waste by volume).

Non-hazardous waste disposal options:

- Sanitary landfill
  - Composting
  - Incinerator
- 
- Missouri regulations will require (like most states) records of plant wastes generated and disposition. (Records kept for 5 years).

# Air

- Odors (release of VOCs) from cultivation/processing (odor control plans are required such as carbon filtration, etc.)
- Emission of volatile organic compounds associated with extractions and infusions
- Fermentation to produce CO<sub>2</sub> to accelerate plant growth (creating CO, nitrogenoxides, PM, SO<sub>2</sub> and VOCs)
- Natural Gas Fired Boilers/Emergency generators

# Occupational Safety Hazards

- Explosion from extractions
- Hydrocarbon solvent toxicity due to improper leaks and poor ventilation
- Reduced oxygen, elevated CO in cultivation facilities
- Off-label pesticide exposure

# Employer/Employee Issues

Laws create further confusion in regards to employee issues:

- Federal American Disabilities Act
- Federal Drug Free Workplace Act of 1988
- State Workers' Compensation laws
- Federal Department of Transportation Regulations

How does legalization impact the utility workplace?

Impact utility employer policies?



# Employer/Employee Issues

## Unique Properties of Marijuana

- Carry-over impairment effect
- Slow rate of metabolization
- Remains in system for extended period
- Easily accessible
- Pervasive unlawful use
- High rates of chronic and habitual use

# Employer/Employee Issues (Cont.)

## Safety Still Important

- Costs of ensuring safe workplaces continue to escalate, including due to risks such as distracted driving, increased driving time, faster production demands, etc.
- Municipal utility infrastructure (water, wastewater, electrical, etc.) have particularly complex operations including those relating to protection of environment, health and safety.
- More injuries means increased workers' compensation, unemployment, and litigation costs

# Employer/Employee Issues

- Costs of drug-testing applicants, employees
- Increased management training costs
- Increased need for supervision, oversight

# Key Questions Faced by Utility Employers

- Do employers continue to enforce their traditional substance-abuse policies, or adopt a new approach for dealing with employees who test positive for marijuana in the workplace?
- Does the Americans with Disabilities Act (ADA) protect employees who claim discrimination based upon their use of marijuana for a disabling medical condition?
- Do employers violate the Occupational Safety and Health Administration's (OSHA's) General Duty Clause by allowing employees who use marijuana to perform safety-sensitive jobs, and thereby create a workplace hazard that OSHA standards seek to eliminate?
- Do the Department of Transportation's (DOT's) substance-abuse regulations trump state marijuana laws?

# Key Questions Faced by Utility Employers (cont.)

- Heightened level of concern for employee safety-sensitive positions, such as driving, construction, etc., while subject to potential adverse cognitive and psychological effects of marijuana?
- Quantification of the amount of marijuana consumed by claimant is not available through urine medication testing, thereby limiting ability to determine if he or she has consumed prescribed dose, or is in fact acutely intoxicated

# Key Questions (cont.)

- Employees shown to be “impaired” on the job may be disciplined and discharged by an employer. (Amendment 2 prohibits claims by employees against employers for being impaired at work)
- As we will discuss, Federal government contractors/grantees subject to the Drug Free Workplace Act of 1988 should continue to follow all of the requirements of the Act, even in states permitting marijuana use by employees
- Employers subject to Department of Transportation HAZMAT rules must recognize the continued ban of marijuana use.
- May still require drug tests unless prohibited by state or federal law.

# Employer Issues/Suggestions

## Review and Update Your Employee Handbooks, and Drug Testing Policies and Practices?

- Some employers use employee handbooks to provide definitive guidance on workplace policies or rules.
- Revise your employee handbook to address the use of marijuana in the workplace.
- Employee handbooks should make clear that employees are not permitted to possess, smoke, ingest, or engage in the use of marijuana while on the employer's premises during the hours of employment.

# Employer Issues/Suggestions (cont.)

- Employees should not be permitted to be under the influence of marijuana while on an employer's premises or during the hours of employment.
- Businesses should also train their frontline supervisors and managers to identify when an employee may be under the influence of marijuana during their hours of employment.
- The observation of these physical symptoms supports the administration of a drug test, which if positive supports the employer taking action against the employee assuming the proper policies are included in the employer's handbook.



# Employer Issues/Suggestions (cont.)

## The Americans with Disabilities Act

- Employers may prohibit current illegal use of drugs and alcohol in the workplace and require that employees report for duty without engaging in the unlawful use of drugs
- A positive test result establishes “current” use
- Under federal law, medical marijuana use is considered illegal drug use
- Is there a duty to have to provide an alternate reasonable accommodation?

# Employer Issues/Suggestions (cont.)

More requests for American with Disabilities Act (“ADA”) accommodation?

- Employees under the influence of medical marijuana could have unknown side effects that make them unable to perform their duties.
- Same restrictions apply as to employees using prescription drugs: must report to management and can’t work if side effects

# Laws and Regulations

- The Drug-Free Workplace Act of 1988
  - Prohibits the possession and use of marijuana (and other drugs) in the workplace if the employer has a federal contract of over \$100,000 or is a federal grantee of any kind
  - Applicable to certain federal contractors and grantees
  - Penalties include cessation of payment, termination of contract/grant, suspension/loss of federal contractor or grantee status

# Laws and Regulations (cont.)

## Drug Free Workplace Act of 1988

### Six requirements

- Publish a policy statement informing employees that it is unlawful to have or use drugs in the workplace and the penalties imposed if they do
- Create a drug free awareness program to educate employee
- Notify employees that employment on a federal contract requires the employee to abide by the drug free workplace policy
- Notify the contracting federal agency within 10 days of receiving notice that any employee has been convicted of a criminal drug violation in the workplace
- Impose a penalty on employees convicted of drug violations or require participation in a drug rehabilitation program
- Make an ongoing good faith effort to maintain a drug free workspace

It does not mandate testing

# Laws and Regulations (cont.)

- U.S. Department of Transportation
  - Omnibus Transportation Employee Testing Act of 1991
    - Requires drug and alcohol testing of drivers, pilots, and other “safety-sensitive” jobs that are under the domain of the Department of Transportation (DOT)
    - The DOT has guidelines that prohibit the use of medical marijuana by transportation workers including pilots, school bus drivers, truck drivers, subway operators, ship captains and fire-armed transit security workers

# Laws and Regulations (cont.)

## Department of Transportation

- Pilots, bus drivers, truck drivers, train engineers, subway operators, aircraft maintenance personnel, transit fire armed security personnel, ship captains and pipeline emergency response personnel, among others
- No driver may report for or remain on safety-sensitive duty while using any controlled substance
- No driver shall report for or remain on safety-sensitive duty after testing positive for unlawful drugs

# Laws and Regulations (cont.)

## Department of Transportation (cont.)

- On 10/22/09, DOT issued a statement asserting that its regulated drug testing program will not change based upon the DOJ's 10/19 statement
- DOT regs do not authorize 'medical marijuana' under state law to be a valid medical explanation for a transportation employee's positive drug test result. (DOT takes priority)
- "Therefore, Medical Review Officers will not verify a drug test as negative based upon information that a physician recommended that the employee use 'medical marijuana...'. It remains unacceptable for any safety-sensitive employee subject to drug testing under the Dept. of Transportation's drug testing regulations to use marijuana."

# Laws and Regulations (cont.)

## ➤ Occupational Safety and Health Administration (OSHA)

### General Duty Clause

- Maintain workplaces that are free from hazards likely to cause death or serious physical harm to employees
- Impairment caused by marijuana could be considered a hazard and a possible violation of OSHA
- Does legalization have the potential to increase injury and citation risks?



# Laws and Regulations (cont.)

## The Family and Medical Leave Act

- Marijuana is not deemed addictive
- Absence tied to medical use (as opposed to underlying impairment) is not likely to be deemed a serious health condition

# Additional Liability Risks for Employers

## Physical Injuries to User or Others:

- Injuries in various types of activities are increased when employees are under the influence, even when they don't appear impaired.
- Utilities are concerned about injury to:
  - their employees
  - their infrastructure
  - third parties (the public)

# Increased unemployment Costs?

- Will a positive drug test resulting in termination be an automatic bar to unemployment benefits?
- Increased claims translate to increased unemployment fund contributions by employers

# Laws and Regulations (cont.)

Legalizing medical marijuana could mean more requests for ADA accommodation

- Employees under the influence of medical marijuana could have unknown side effects that make them unable to perform their duties.
- Same restrictions apply as to employees using prescription drugs: must report to management and can't work if side effects
  - Does employee seeking accommodation for medical use have appropriate medical certification and will refrain from on duty use or otherwise not pose a risk to the employer?

# Laws and Regulations (cont.)

- Americans with Disabilities Act (cont.)
  - Contains an illegal drug provision (exception for use of Schedule I drug taken under supervision by a licensed health care professional)
  - Employees are seeking accommodation for the underlying disability that necessitates the use of medical marijuana
  - Does the accommodation impose an “undue hardship”?
    - Nature and cost of the accommodation
    - Financial resources of the employer
    - Type of operation of the employer
    - Impact of the accommodation
- Is there a connection between the medical screening and the work performed?
  - Examples – airline pilots, school bus drivers