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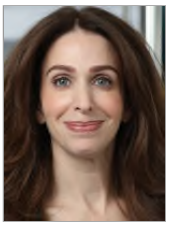
Phone: +1 646 783 7100 | Fax: +1 646 783 7161 | customerservice@law360.com

Cannabis Cos. Must Heed PFAS Risks In Products, Packaging

By **Malina Dumas and Amy Rubenstein** (July 26, 2023, 2:54 PM EDT)

Malina Dumas



Amy Rubenstein

Most operators in states that have legal medical or adult-use cannabis sales have become familiar with the stringent packaging and labeling requirements for cannabis products.

The key policy basis for many cannabis-specific packaging regulations is to protect minors, and this is effectuated in two ways: (1) keeping cannabis and cannabis products in child-resistant containers or packaging; and (2) prohibiting cannabis sellers from using certain images, designs or branding that would likely appeal to minors.

Labeling requirements also protect public health and safety by providing medical and adult-use cannabis consumers with information about what they are eating, inhaling or otherwise consuming.

These regulations — along with mandatory testing — help ensure that consumers receive accurate information about a product's potency, as well as the presence or absence of chemicals, pesticides or other contaminants.

In the coming weeks and years, cannabis businesses and ancillary service providers will have to grapple with a new challenge: perfluoroalkyl and polyfluoroalkyl substances, or PFAS, and the developing regulations for this chemistry.

As enforcement and litigation trends evolve in this area, cannabis companies should consider taking certain steps to mitigate risks posed by potential PFAS in their products from raw materials, the manufacturing process or finished packaging materials.

Background on PFAS

PFAS are known as "forever chemicals" because their strong carbon-fluorine bond can take decades and even centuries to degrade naturally. A study published in 2022 by researchers at Northeastern University found more than 57,000 sites across the U.S. where PFAS is present.[1]

In the 1940s, PFAS began to be commercialized globally as they proved to be a useful chemical in fire safety products, nonstick coatings on cookware, and water- or stain-resistant fabrics for textiles, while also serving numerous functions in other manufacturing industries, such as aerospace or aviation.

Today, PFAS can be found in hundreds — if not thousands — of popular commercial and consumer products, including food packaging[2] and cosmetics.[3]

Now, at the state and federal levels, new regulations related to PFAS are being introduced and passed each month.

Regulations affecting packaging materials, textiles, personal care products, cookware, water and many other consumer product goods require businesses to adjust their practices, potentially including their supply chain, claims about products, insurance coverage and contracts with vendors.

Regulations Expressly Restricting PFAS in Packaging

The relationship between PFAS and the cannabis plant has largely been overlooked. But, by its nature, cannabis is sensitive to PFAS because it is a phytoremediator, with deep roots that accumulate nutrients, chemicals or pollutants in the soil or water.[4]

We are likely to see increased attention to PFAS in cannabis, cannabis products and cannabis product packaging in states that have both (1) legalized medical or adult-use cannabis sales, and (2) implemented PFAS restrictions related to other products.

One state has already taken action in this area. On May 30, Minnesota Gov. Tim Walz **signed into law** a cannabis legalization bill that specifically references PFAS in relation to cannabis packaging.

The law states that "[p]ackaging for cannabis flower, cannabis products, lower-potency hemp edibles, and hemp-derived consumer products must not contain or be coated with any perfluoroalkyl substance," and "[e]dible cannabis products and lower-potency hemp edibles must not be packaged in a material that is not approved by the United States Food and Drug Administration for use in packaging food."[5]

Infused food and beverages manufacturers and distributors have learned to comply with certain food packaging and labeling requirements, as cannabis businesses remain subject to numerous generally applicable laws, but these laws have not previously included PFAS as a prohibited substance.

Many states have adopted or are adopting complex regulations for PFAS in food or other types of packaging that also could apply to medical or adult-use cannabis businesses, where they would not apply to a traditional pharmaceutical company, for example.

States have already started to phase out PFAS in food packaging and have otherwise started restricting the sale of certain products containing PFAS, such as firefighting foam, cosmetics, rugs and furniture.[6]

Prohibiting packaging that contains PFAS for all cannabis and cannabis products in Minnesota further differentiates this industry from pharmaceutical companies, and manufacturers and distributors of tobacco products, that are not subjected to these regulations, despite using similar packaging.

This is yet another area where cannabis businesses need to both stay current and follow a moving target to remain compliant across all aspects of their operations, particularly if they are multistate operators or purchase their packaging materials from other states or countries.

Enforcement and Litigation Trends

While Minnesota's specific ban on PFAS in cannabis packaging is the first of its kind, the director of the Minnesota Office of Medical Cannabis, Chris Tholkes, serves as treasurer for the Cannabis Regulators Association[7] and could be in a position to influence other state policymakers on this matter.

Minnesota's ban on PFAS in cannabis packaging will draw attention not only from regulators, but from consumers and competitors as well.

Currently, it is unclear how broadly or narrowly the Minnesota regulators will apply this prohibition. However, the legislation authorized the Office of Cannabis Management to issue a monetary penalty of up to $10,000 — or an amount that deprives the business of any economic advantage gained — for a violation.[8]

Future rulemaking will likely detail how this restriction will be monitored and enforced. Unless Minnesota decides to engage in routine testing for PFAS in cannabis packaging, it will likely be consumer complaints that trigger OCM investigations into a potential violation.

Public awareness that a cannabis business has violated the law by using packaging that contains or is coated with PFAS could lead to consumer protection lawsuits.

The enforcement and litigation landscape for PFAS claims is rapidly evolving, and trending toward an increase in lawsuits against manufacturers of consumer products.

PFAS-related cases started to proliferate in the late 1990s and were primarily focused on alleged contamination of water supplies by large manufacturing plants.

Today, cases include:

- Private parties seeking injunctive relief, specific performance like remediation, and damages for alleged land and water contamination — more along the lines of the first wave of litigation;
- Consumer protection and false advertising claims;
- Government enforcement actions; and
- Challenges to agency rulemaking.

Those sorts of claims could ensnare a cannabis business. A consumer may claim, for example, that a label or advertisement indicating that a certain cannabis product is healthy, sustainable and environmentally friendly is false or misleading if the cannabis was cultivated in PFAS-contaminated soil, or if for any reason the product or packaging is shown to have contained elevated levels of PFAS, i.e., the company engaged in greenwashing.

Accordingly, prospective licensees in Minnesota should start completing their due diligence of vendors now to ensure their packaging will be compliant.

Contamination and Testing Issues: Mitigating Risk

To investigate a legal claim relating to PFAS in packaging, the product and the packaging will need to be tested. That PFAS has become ubiquitous in water and soil across thousands of sites nationwide will likely present a challenge to the cannabis industry as well.

If cultivators use water or soil with PFAS to grow cannabis, the cannabis may show elevated levels of PFAS. PFAS in soil has become particularly common in the mid-Atlantic states, where sludge or biosolids taken from public wastewater treatment facilities were used to fertilize fields for prior crops.

It is unlikely that PFAS in the cannabis itself would be detected through the mandatory testing regimes that exist currently for cannabis and cannabis products in most states because that is not part of the testing protocols.

If a consumer protection or regulatory action is brought against a cannabis company for PFAS in packaging, it will be difficult to determine whether the PFAS came from the packaging or the cannabis itself without costly and time-consuming PFAS testing for each component.

This has been an issue for companies dealing with claims of PFAS contamination in food or beverage products.

The cannabis or water used to make a cannabis beverage, for example, could contain PFAS, and few operators, even in the food and beverage space, test for PFAS before bottling, canning or otherwise packaging products.

If the packaging manufacturer is accused of violating PFAS regulations, and testing the packaging confirms this, it will be challenging at that point for the manufacturer to prove that PFAS contamination occurred later in the supply chain.

Accordingly, cannabis companies should consider asking their packaging materials suppliers for assurances that their finished materials do not contain PFAS.

For cannabis businesses in Minnesota — and elsewhere if other regulators adopt similar provisions — this is a must, not a should, because they will need to obtain a certification from the packaging manufacturer that it does not contain PFAS.

Likewise, packaging materials manufacturers or distributors should consider obtaining information both from their suppliers and about their customers' businesses to understand the supply chain, and customer needs related to PFAS.

Businesses also need to consider the testing methodologies that may be used to identify PFAS in a given product.

While tests for organic fluorine are less expensive and more readily available than actual PFAS testing through particle-induced gamma ray emission or other commonly used methods like liquid chromatography-mass spectrometry and gas chromatography-mass spectrometry,[9] organic fluorine tests are demonstrably less reliable.

A 2022 study from researchers at Harvard University showed that while extracted organic fluorine has a strong correlation with the presence of PFAS in products like food packaging, specific measured PFAS typically only accounts for up to 2% of extractable organic fluorine or total fluorine levels.[10] So, an organic fluorine test is not a PFAS test.

Businesses will need to take the testing methodologies into account when determining which test to use to mitigate their risk, and regulators will need to consider the variability, reliability and availability of different testing methodologies when imposing mandatory testing requirements.

Conclusion

Issues related to PFAS contamination in product packaging will affect cannabis businesses and noncannabis businesses alike. A company distributing product packaging across the U.S. needs to understand applicable laws in Minnesota, for example, and may start asking customers more questions about the nature of their business.

There will be increased risk in providing packaging materials to a cannabis business under this new law, which will likely influence how vendors draft contracts.

Given that it may be difficult to determine whether PFAS found in packaging came from the packaging itself or from the cannabis contained in the packaging, businesses will need to consider how to allocate responsibility for compliance and testing.

A cannabis business in Minnesota will need to verify that the packaging they are purchasing from any vendor does not violate applicable state laws and regulations.

Across the country, operators should pay attention to rulemaking at the federal, state and local level, providing comments or otherwise engaging in the

process and remaining up to date on any developments in this area that will inevitably affect the business moving forward, while ensuring they are fully compliant with any laws already in place.

Malina Dumas is a senior managing associate and Amy Rubenstein is a partner at Dentons.

[1] Derrick Salvatore et al., Presumptive Contamination: A New Approach to PFAS Contamination Based on Likely Sources, Environmental Science & Technology Letters (2022), https://pubs.acs.org/doi/10.1021/acs.estlett.2c00502.

[2] Center for Food Safety and Applied Nutrition, Per- and Polyfluoroalkyl Substances (PFAS), FDA (2022), https://www.fda.gov/food/environmental-contaminants-food/and-polyfluoroalkyl-substances-pfas.

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[5] HF 100 (93rd Legis. 2023), Section 342.62(3).

[6] PFAS, Safer States, https://www.saferstates.com/toxic-chemicals/pfas/, (last visited June 18, 2023).

[7] 2023-2024 Executive Board, Cannabis Regulators Association, https://www.cann-ra.org/leadership (last visited July 9, 2023).

[8] HF 100 (93rd Legis. 2023), Section 342.19(5)(b).

[9] Carrie A. McDonough, Jennifer L. Guelfo & Christopher P. Higgins, Measuring total PFASs in water: The tradeoff between selectivity and inclusivity, 7 Current Opinion in Environmental Science & Health 13 (2019), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7584354/.

[10] Anna M Young et al., Organic Fluorine as an Indicator of Per- and Polyfluoroalkyl Substances in Dust from Buildings with Healthier versus Conventional Materials, 56 17090 (2022), https://pubs.acs.org/doi/10.1021/acs.est.2c05198.
