



SOUTHERN NEW HAMPSHIRE
— DRUG TESTING LLC —

July 2, 2024

Department of Justice

Drug Enforcement Administration

21 CFR Part 1308

Schedules of Controlled Substances: Rescheduling of Marijuana

Reference: [Docket No. DEA-1362; A.G. Order No. 5931-2024]

Dear Attorney General Merrick B. Garland,

Thank you for the opportunity to comment upon the Notice of Proposed Rulemaking (NPRM) to reschedule marijuana to Schedule III of the Controlled Substances Act, Docket No. DEA-1362.

I am a small business owner of a Drug Collection Company in New Hampshire and I am a Transportation Safety Professional.

I have worked in safety most of my career as a lab manger and working with departments of the Joint Commission and the FDA.

Because I am now professionally involved with and dedicated to transportation safety in the United States, I am concerned that this rulemaking is likely to have serious consequences for transportation safety. If marijuana is moved to CSA Schedule III, this action will remove marijuana from the drug testing panel of the United States Department of Transportation (DOT).

This will remove the highly effective deterrence that has been achieved by 35 years of testing DOT-regulated commercial transportation safety-sensitive employees for marijuana use. DOT safety-sensitive employees, include, but are not limited to: airline pilots, air traffic controllers, school bus drivers, subway and train operators, ferry operators, pipeline operators and truck drivers.

I would like to cover 2 issues with the rescheduling of marijuana:

#1 Factor 1: **Marijuana's Actual or Relative Potential for Abuse:**

- The 2 most common drug violations in the FMCSA Clearinghouse are **marijuana and cocaine**. One reason there is a shortage of CDL drivers is because these violations, and the other is that drivers are not going for help with our DOT SAP program.
- I recently performed a DOT post-accident test where there was a fatality and the driver was positive for **marijuana and cocaine**.
- In 2023, research by the National Transportation Safety Board (NTSB) released research showing that **marijuana and alcohol remain the most-detected drugs in impaired driving crashes** resulting in **serious or fatal injuries**.
- A published study in the National Journal of Medicine found **a 6.5% increase in injury crash rates and a 2.3% increase in fatal crash rates** associated with state-level marijuana legalization as presented by Senator Ted Cruz on May 22 at the Senate Commerce Subcommittee Hearing.²

Here are some quotes from the seminar on Recreational Marijuana given by Dr Eric Bornstein, DMD

The marijuana in the market today is far more potent and dangerous than anything we have seen in the past. 3

“The United States has effectively entered an age of recreational “nuclear-strength” potency marijuana. **In 1969 at Woodstock, the average THC potency of Marijuana was 1%.** Today, at dispensaries across the nation, marijuana can be purchased at potencies (smokable, edibles, concentrates, and vape-able) anywhere from “1%” THC marijuana flower, to 500mg THC **edibles, to 60%-80% THC “concentrates”**, to greater than 90% THC “Vape Juice”. None of these high potency marijuana products are safe.”³

2 Scientific Evidence of Its highly detrimental pharmacological effects are known:

The presenter, Dr. Eric Bornstein presented the clear peer-reviewed link between high potency marijuana and depression, psychosis, schizophrenia, addiction, and suicide.

1) **Current research:** Blood THC concentrations achieved from vaping devices are much greater than from equivalent smoked marijuana.¹

¹ Spindle, Tory R., et al. "Acute effects of smoked and vaporized cannabis in healthy adults who infrequently use cannabis: a crossover trial." JAMA network open 1.7 (2018): e184841- e184841.

- 2) **THC addiction:** No matter the delivery method, modern THC concentrations are highly addictive, and this information has been known for at least a century. **Recovery** from high-potency THC addiction can be challenging due to the stronger effects on the brain and the potential for more severe withdrawal symptoms.²
- 3) **Psychiatric Risks:** High-potency THC is linked to an increased risk of psychiatric disorders such as psychosis, especially in individuals with a genetic predisposition.³
- 4) **Addiction Potential:** The higher the THC content, the greater the risk of addiction. Users of high-potency cannabis are more likely to develop dependency compared to those using lower-potency products.⁴
- 5) **Withdrawal Symptoms:** Withdrawal from high-potency THC can include symptoms like irritability, restlessness, and other physical symptoms. Behavioral therapy, including motivational interviewing, has been shown to help people overcome the disorder.⁵
- 6) **Inflammation to lung tissue:** The oils and ingredients in e-cigarette "THC vape juice" super-heated mist can cause great amounts of inflammation and permanently damage lung tissue.^{6 7}
- 7) **Severe lung damage:** There have been thousands of cases of severe and irreversible damage to peoples' lungs, including thousands of deaths as a result of vaping THC.^{8 9}
- 8) **Unknown substances:** Many teens have no idea what is in the vape devices they are using to get high with THC. Ingredients can CBD oils, synthetic cannabinoids, opioids, hallucinogens, and other dangerous additives.^{10 11 12 13 14}
- 9) **Heart and Brain Damage:** THC and other substances in e-liquid damage the heart and the brain in a dangerous variety of ways.^{15 16}

² Stuyt, Elizabeth. "The problem with the current high potency THC marijuana from the perspective of an addiction psychiatrist." *Missouri medicine* 115.6 (2018): 482.

³ Urits, Ivan, et al. "Cannabis use and its association with psychological disorders." *Psychopharmacology bulletin* 50.2 (2020): 56.

⁴ Petrilli, Kat, et al. "High potency cannabis use, mental health symptoms and cannabis dependence: Triangulating the evidence." *Addictive behaviors* 144 (2023): 107740.

⁵ Connor, Jason P., et al. "Clinical management of cannabis withdrawal." *Addiction* 117.7 (2022): 2075-2095.

⁶ Park, Jin-Ah, Laura E. Crotty Alexander, and David C. Christiani. "Vaping and lung inflammation and injury." *Annual review of physiology* 84 (2022): 611-629.

⁷ Rebuli, Meghan E., et al. "The e-cigarette or vaping product use-associated lung injury epidemic: pathogenesis, management, and future directions: an official American Thoracic Society Workshop Report." *Annals of the American Thoracic Society* 20.1 (2023): 1-17.

⁸ Galo, Jason, et al. "A presentation of E-Cigarette vaping associated lung injury (EVALI) caused by THC-Containing electronic smoking device." *Respiratory medicine case reports* 31 (2020): 101154.

⁹ Tituana, Nathaly Yessenia, et al. "E-cigarette use-associated lung injury (EVALI)." *Pneumologie* (2023).

¹⁰ Selya, Arielle, et al. "What substances are adolescents vaping? Estimating nicotine-specific and marijuana-specific vaping from US national youth surveys." *Qeios* (2023).

¹¹ Bhat, Tariq A., et al. "Not all vaping is the same: differential pulmonary effects of vaping cannabidiol versus nicotine." *Thorax* (2023).

¹² Martin, Alexia, et al. "Exposure to aldehyde cherry e-liquid flavouring and its vape byproduct disrupts pulmonary surfactant biophysical function." *bioRxiv* (2023): 2023-09.

¹³ Morris, James D., Kinsey Pebley, and Melissa A. Little. "Vaping opioids: should we be worried?." *American journal of health promotion* 37.8 (2023): 1171-1173.

¹⁴ Bessenyei, Kitty, and Igor Yakovenko. "Predictors of polysubstance vaping in emerging adults." *Addictive Behaviors* 142 (2023): 107675.

¹⁵ Fahimi, Behzad, Somayeh Beikmohammadi, and Parsa Rostami. "Cannabinoids and Cardiac Rhythms: Unveiling the Relationship between Cannabis Use, ECG Changes, and Arrhythmias." (2024).

10) **High Blood Pressure:** THC raises your blood pressure and activates the sympathetic nervous system, which increases your heart rate and the chances of cardiovascular disease and heart attack.^{17 18}

11) **Generational Epigenetic Changes:** Paternal THC consumption produces heritable behavioral phenotypes, namely hyperactivity, attention deficit, and cognitive inflexibility in progeny consistent with behavioral changes associated with human neurodevelopmental disorders such as ADHD and autism spectrum disorder.^{19 20}

In conclusion, if the reclassification of marijuana from Schedule I to Schedule III takes place, Southern NH Drug Testing is urging for some form of safety-carve out to be issued to maintain cannabis testing by the Department of Transportation (DOT), the Nuclear Regulatory Commission (NRC), and safety-sensitive workplaces as a deterrent against substance misuse by safety-sensitive employees as a means to protect the traveling public.

Sincerely,

Lynn Collins, Owner Southern NH Drug Testing

References:

1 -National Highway Traffic Safety Administration. (n.d.). *Drug-Impaired Driving*. United States Department of Transportation. <https://www.nhtsa.gov/risky-driving/drug-impaired-driving>

2- American Trucking Associations. (n.d.). *American Trucking Associations*. LinkedIn. https://www.linkedin.com/posts/ata_marijuana-and-alcohol-are-the-most-detected-activity-7199757031807795200-M2Qk/?utm_source=share&utm_medium=member_desktop

3-INR presentation on Recreation Marijuana, given by Dr Eric Bornstein, DMD

¹⁶ Rose, Jason J., et al. "Cardiopulmonary impact of electronic cigarettes and vaping products: A Scientific Statement From the American Heart Association." *Circulation* 148.8 (2023): 703-728.

¹⁷ Rahman, Ali, et al. "Characterization and Summarization of the Impact of Electronic Cigarettes on the Cardiovascular System: A Systematic Review and Meta-Analysis." *Cureus* 15.5 (2023).

¹⁸ Khan, Muhammad Atif, et al. "Marijuana as a Cause of Diffuse Coronary Vasospasm Leading to Cardiac Arrest." *Cureus* 15.4 (2023).

¹⁹ Murphy, Susan K., et al. "Cannabinoid exposure and altered DNA methylation in rat and human sperm." *Epigenetics* 13.12 (2018): 1208-1221.

²⁰ Schrott, Rose, et al. "Refraining from use diminishes cannabis-associated epigenetic changes in human sperm." *Environmental epigenetics* 7.1 (2021): dvab009.

