



NAVIGATING INDUSTRIAL HEMP REGULATIONS IN COLORADO

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Thuy Vu Consulting, LLC

2018 Association of Food and Drug Officials

Cannabis Breakout Session

Burlington, Vermont

June 13, 2018



MY BACKGROUND

- 2010-2015: Lead foodborne illness, outbreak, and marijuana investigator for Denver Department of Public Health and Environment, Public Health Inspections Division
- The first Environmental Health Investigator to specialize in marijuana operations, spearheading inspections, investigations, and enforcement of the Denver marijuana industry, implementing the first 5 food safety recalls of marijuana infused products and the first foodborne illness outbreak of a licensed marijuana operation in 2014.
- First presentation on food safety concerns of marijuana-infused products at the 2014 Rocky Mountain Food Safety Conference: Food Safety Regulation of Marijuana Products in Denver
- 3+ years experience in the private marijuana & industrial hemp industries, specializing in cannabis extraction & refinement processes; food safety concerns of concentrate & infused-products manufacturing; building code requirements for extraction room design; fire, life safety, and occupational hazards of cannabis operations; environmental impacts of cannabis operations; and regulation of marijuana & industrial hemp industries.
- Consulted with Denver Fire Department, resulting in the hazardous location classification requirements for Class I Division 1 and Class I Division 2 Extraction Rooms in the City and County of Denver in 2015, helping set the precedent for the rest of the nation.
- Oversaw the product research, development, and launching of Leafs by Snoop, the first commercial celebrity cannabis product line.
- Successfully petitioned for rezoning approval of the first industrial hemp extraction operation in Jefferson County, Colorado in October 2017.
- Conducted marijuana training for the Alaska Division of Environmental Health Food Safety and Sanitation Program, the Hawaii Department of Health Sanitation, Food and Drug Branch and the Louisiana Department of Health. Collaborates with Colorado Department of Health and Environment on the Industrial Hemp Program.
- Sits on the cannabis planning committees for the Rocky Mountain Food Safety Conference (RMFSC), Association of Food and Drug Officials (AFDO), and Western Association of Food and Drug Officials (WAFDO). Presented at numerous food safety conferences, the American Chemical Society (ACS), the Colorado Chapter of the International Code Council (ICC), and at the Rocky Mountain Chapter of the Society of Fire Protection Engineers (SFPE).



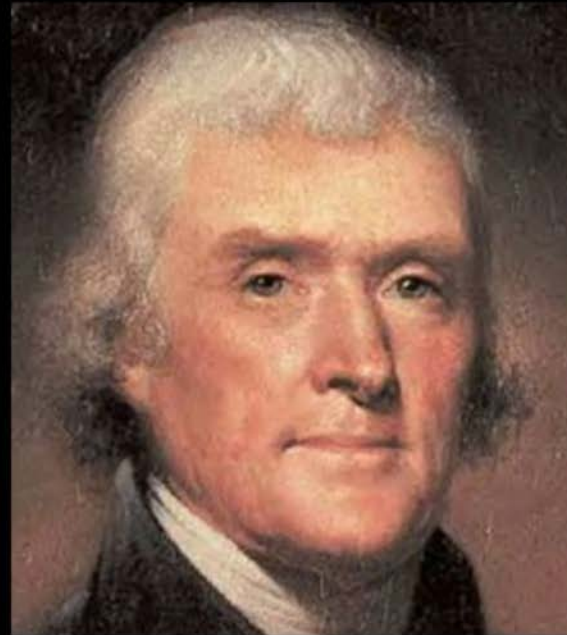
THE AGRICULTURAL ACT OF 2014 (2014 FARM BILL)

Section 7606 legalized the growing & cultivation of industrial hemp (IH) for universities and state departments of agriculture:

- For research purposes conducted under an agricultural pilot program, or agricultural/academic research;
- Growing & cultivation of IH allowed under the State law, who is mandated to regulate IH; and
- Cultivation sites must be certified and registered with the state.

THE INDUSTRIAL HEMP FARMING ACT 2015

Allowed for American farmers to produce and cultivate industrial hemp by removing industrial hemp from the Controlled Substances List, as long as it met the standard of identity and contained no more than 0.3% THC.



Hemp is of
first necessity to
the wealth and
protection of
the country

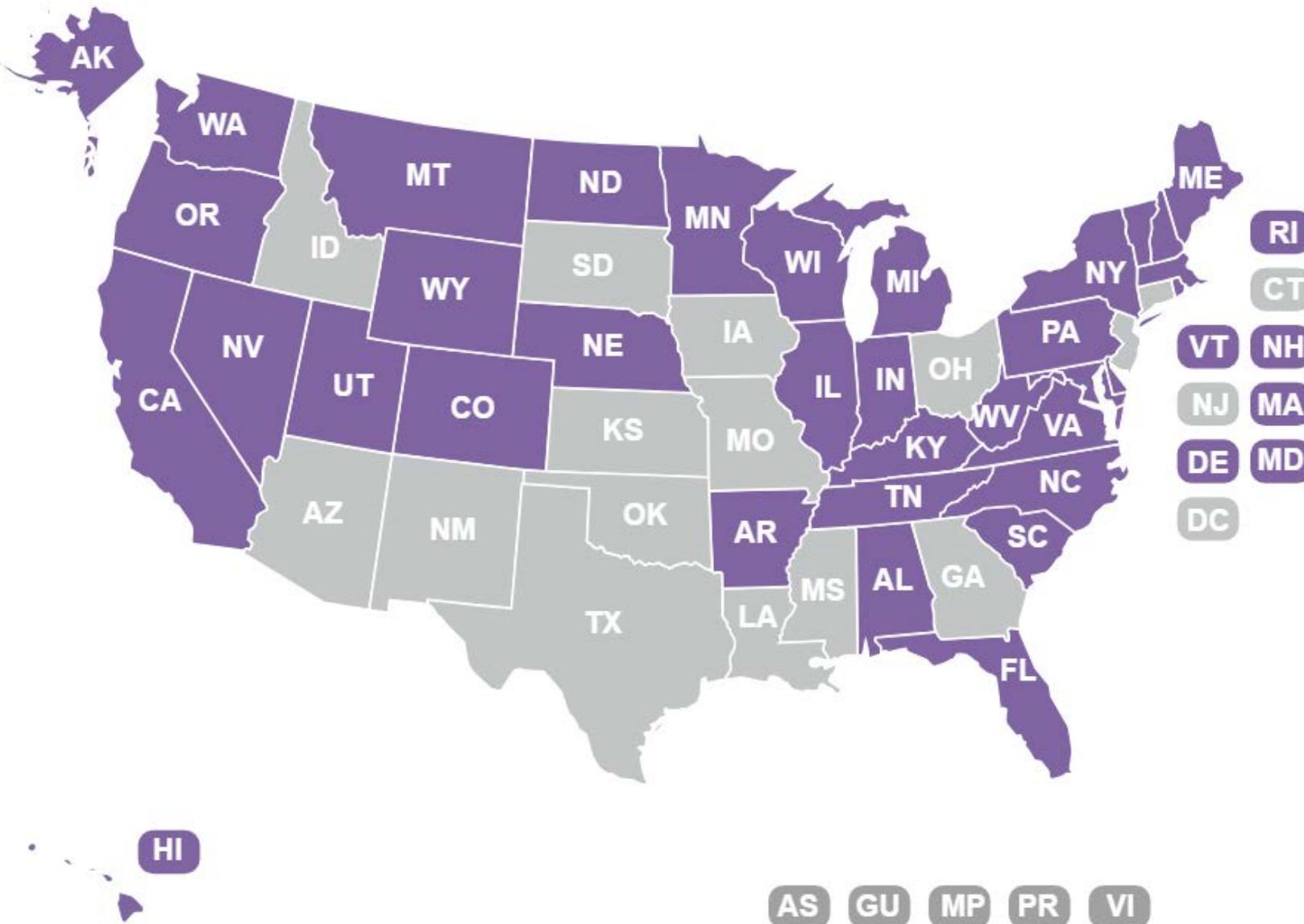
- Thomas Jefferson

THE STATEMENT OF PRINCIPLES ON INDUSTRIAL HEMP

In August 12, 2016, the U.S. Department of Agriculture, in consultation with the U.S. Drug Enforcement Administration and the U.S. Food and Drug Administration, sought to inform the public on the applicability of Federal law on activities associated with the growing and cultivation of industrial hemp in accordance with Section 7606 of the Agricultural Act of 2014.

Allows cultivation of hemp for commercial, research or pilot programs

Does not allow cultivation of hemp.



STATES AND US TERRITORIES THAT ALLOW INDUSTRIAL HEMP CULTIVATION (2018)

[HTTP://WWW.NCSL.ORG/RESEARCH/AGRICULTURE-AND-RURAL-DEVELOPMENT/STATE-INDUSTRIAL-HEMP-STATUTES.ASPX](http://www.ncsl.org/research/agriculture-and-rural-development/state-industrial-hemp-statutes.aspx)

INDUSTRIAL HEMP DEFINED

Amendment 64 to the Colorado Constitution and the Colorado Revised Statutes (C.R.S.), §35-61-101(7), defines industrial hemp as “a plant of the genus *Cannabis* and any part of the plant, whether growing or not, containing a delta-9 tetrahydrocannabinol (THC) concentration of no more than three-tenths of one percent (0.3%) on a dry weight basis.”





COLORADO DEPARTMENT OF AGRICULTURE

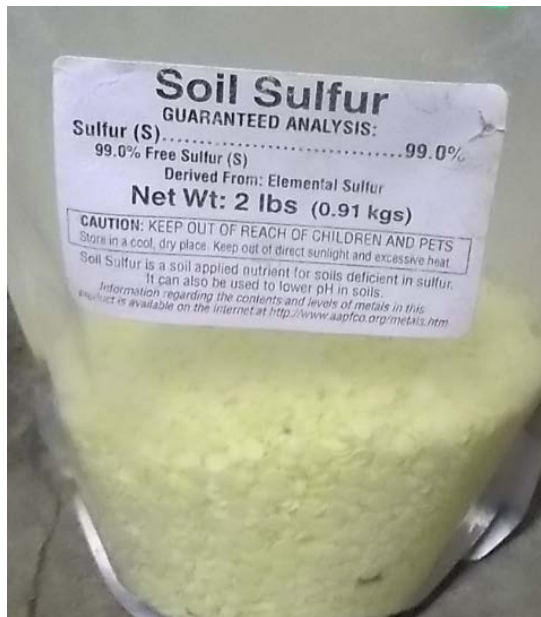
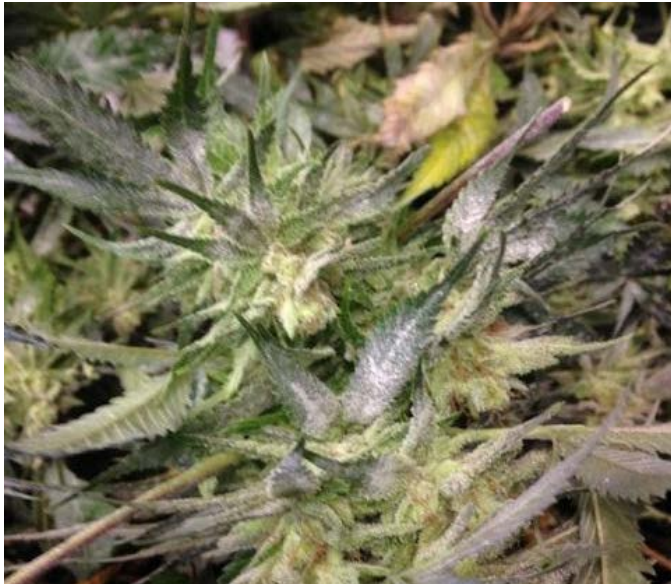
- Regulates the registration and cultivation of industrial hemp.
- CDA Approved Certified Seed Program
- All plants within the Registered Land Area (RLA) must measure below 0.3% THC.
 - 0.3-1.0 % THC = Civil Penalty or request waiver if material is destroyed onsite, not used for human consumption, and does not enter the stream of commerce.
 - >1.0 % THC = Civil Penalty
 - Non-compliance is subject to Criminal Penalty.



COLORADO DEPARTMENT OF AGRICULTURE

- Adopted rules **setting criteria for use of allowable pesticides in cannabis cultivation** in accordance with the Colorado Pesticide Applicator's Act.
- **40 CFR Part 170: EPA's Agricultural Worker Protection Standards (WPS)** requires owners and employers of agricultural establishments:
 - Provide PPE to workers and handlers from potential pesticide exposures;
 - Provide training on safe use and application of pesticides;
 - Provide training on how to avoid exposures to pesticides; and
 - Identify pesticide exposure symptoms and how to respond and manage exposures to pesticides if they occur.

PESTS AND FUNGAL INFECTIONS



- Yeast & Mold
- Powdery mildew
- Bud rot
- Mycotoxins (Aflatoxins & Ochratoxins)
- Black Mold
- Spider Mites
- Rust Mites
- Aphids
- Thrips



COLORADO DEPARTMENT OF PUBLIC HEALTH & ENVIRONMENT

- Division of Environmental Health & Sustainability
- Air Pollution Control Division
- Hazardous Materials & Waste Management Division
- Water Quality Control Division

CDPHE: DIVISION OF ENVIRONMENTAL HEALTH & SUSTAINABILITY

Industrial Hemp Policy:

In accordance with §35-61-108(2) C.R.S., the use of all parts of the industrial hemp (IH) plant is allowed as a food ingredient in Colorado. Those **manufacturers producing food items that contain IH must register with CDPHE** under the provisions of C.R.S., §25-5-426. This policy establishes the allowance for and conditions that must be adhered to for IH to be utilized in food. This policy does not establish or infer conformance with applicable federal laws.

CONDITIONS OF INDUSTRIAL HEMP POLICY

- All parts of the hemp plant utilized in food must come from a state that has an established and approved industrial hemp program or a country that inspects or regulates hemp under a **food safety program or equivalent criteria to ensure safety for human consumption.**
- The IH producer/grower must be in good standing and in compliance with the governing laws within the state or country of origin.



CONDITIONS OF INDUSTRIAL HEMP POLICY

- The IH must conform to the **standard of identity** established in C.R.S., §35-61-101(7) of **no more than three-tenths of one percent delta-9 tetrahydrocannabinol (THC)**.
- The use of other parts of the IH plant other than seed and its derivatives (seed meal, flour, and oil) shall have **lab test results indicating the levels of THC within the derivatives are not above the allowable limit of three-tenths of one percent THC**.
- The producer must be able to **document that the finished product does not contain more than three-tenths of one percent THC**.

CONDITIONS OF INDUSTRIAL HEMP POLICY

- The product must be labeled in conformance with state and federal labeling laws, including:
 - Clearly identify hemp as an ingredient;
 - Clearly identify CBD and the amount of CBD if added as an isolate;
 - Include the statement, “**FDA has not evaluated this product for safety or efficacy**”; and
 - Do not state any health or benefit claims.



CDPHE MANUFACTURED FOODS REGISTRATION IS REQUIRED FOR INDUSTRIAL HEMP OPERATIONS TO BE LISTED AS AN **APPROVED SOURCE**

Primary and Secondary
Extraction Processing

Food & Cosmetics
Manufacturers and
Processors

Re-packers

Brand Owners

Warehouse and Storage
Facilities

Retailers

Any operation
manufacturing,
processing, handling, and
storing industrial hemp
and its derivatives for
human consumption.

FOOD SAFETY CHALLENGES

- Basic Food Safety Knowledge & Training (cGMPs, GAPs)
- Unapproved source
- Non-food grade ingredients
- Unwholesome plant material
- Shelf-stability of infused edible or concentrate for oral consumption
- Refrigeration of PHFs
- Potency and homogeneity of infused products
- Unapproved pesticides & cultivation ingredients
- Residual solvents & Adulterants
- Unapproved and non-food grade equipment
- Mislabeling/Misbranding
- Traceability



CDPHE: AIR POLLUTION CONTROL DIVISION

An **Air Pollutant Emission Notice (APEN)** must be filed for air pollutant emissions from construction, modification or alteration of, any facility, process, or activity which constitutes **a stationary source** from which air pollutants are, or are to be, emitted.

- Criteria Pollutants (VOCs, NO_x, PM, SO₂, & CO)
- Non-Criteria Pollutants (HAP)
- Lead

CDPHE: AIR POLLUTION CONTROL DIVISION

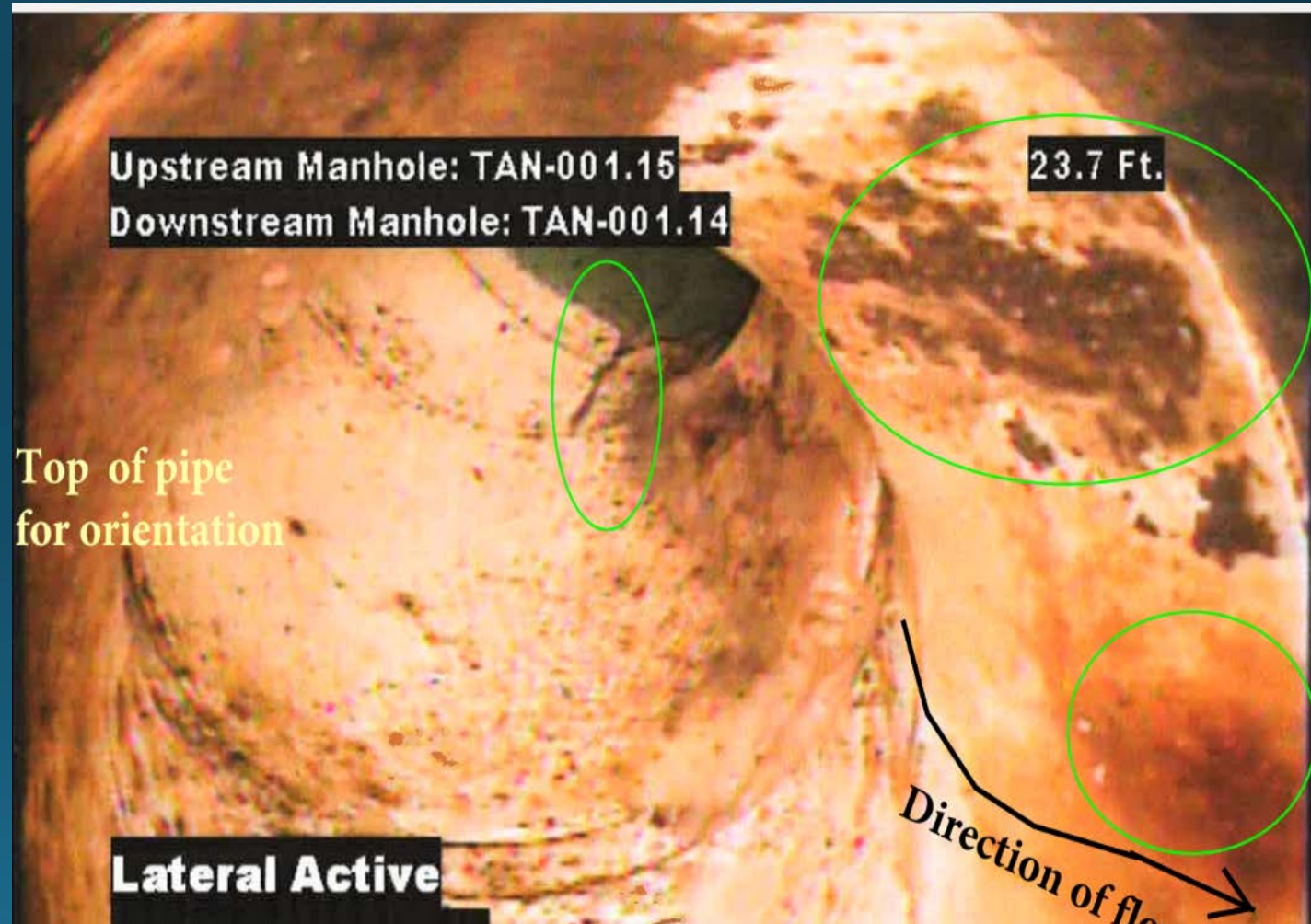
Some approved solvents used to extract and refine cannabis concentrates are **volatile organic compounds (VOCs)** and may require an APEN submission.

- Hydrocarbons
 - Marijuana: butane, propane, pentane, heptane
 - Industrial Hemp: hexane
- Alcohol: Isopropanol, Ethanol
- Ketones: Acetone



CDPHE: HAZARDOUS MATERIALS & WASTE MANAGEMENT DIVISION

Any commercial or industrial operation that is classified as a Hazardous Waste Generator (CESQG, SQG, LQG) must notify CDPHE of regulated waste activity using the **Colorado Hazardous Waste Notification Form** to apply for an **EPA Identification Number** for hazardous waste manifests.



CDPHE: WATER QUALITY CONTROL DIVISION

In accordance with Regulation 61.3(2)(e)(iii), stormwater discharges associated with “industrial activities” are required to obtain a **Colorado Discharge Permit System (CDPS) discharge permit.**

INDUSTRIAL HEMP PROCESSORS AND MANUFACTURERS MUST NOTIFY THE LOCAL MUNICIPALITY!

- Zoning Department
- Building Department
- Fire Department
- Excise and License
- Wastewater Management
- Environmental Health



FIRST APPROVED REZONING FOR INDUSTRIAL HEMP EXTRACTION OPERATION IN COLORADO

The screenshot shows the Canyon Courier website interface. At the top, the site name "CANYON COURIER" is displayed in a large serif font. To the right are four icons: "SUBSCRIBE" (with a newspaper icon), "NIE" (with a graduation cap icon), "CONTACT" (with an envelope icon), and "SUBMIT NEWS" (with a hand icon). Below the site name, the date "Thursday, June 7, 2018" is shown. To the right of the date is a weather widget displaying "View Forecast", "79°F", and "Humidity: 15%" with a small cloud icon. Further right is a "CANYON COURIER Click Here" button with a laptop icon. Below the date is a "LOGIN TO YOUR ACCOUNT:" section with a "Login" button featuring a padlock icon. To the right of the login button is a "Not registered? Sign up" link. A dark blue navigation bar contains the following links: "HOME", "NEWS", "SPORTS", "OPINION", "OBITUARIES", "FEATURES", "SPECIAL SECTIONS", and "CL". The main content area features a large headline: "Evergreen CBD-based business granted rezoning approval". Below the headline is a sub-headline: "Plant-oil extraction will be allowed at property on Bryant Drive". The byline reads "By Corinne Westeman" and the timestamp is "Tuesday, October 24, 2017 at 4:10 pm". To the right of the byline are social media sharing icons for "SHARE", Facebook, Twitter, and Email, followed by font size adjustment buttons (*A, A, -A).

CANYON COURIER

Thursday, June 7, 2018

View Forecast
79°F
Humidity: 15%

CANYON COURIER
Click Here

LOGIN TO YOUR ACCOUNT:
 Login

Not registered? [Sign up](#)

HOME NEWS SPORTS OPINION OBITUARIES FEATURES SPECIAL SECTIONS CL

Evergreen CBD-based business granted rezoning approval

Plant-oil extraction will be allowed at property on Bryant Drive

By Corinne Westeman
Tuesday, October 24, 2017 at 4:10 pm

SHARE

*A A -A

<https://www.canyoncourier.com/content/evergreen-cbd-based-business-granted-rezoning-approval>

FIRE & LIFE SAFETY CONCERNS



- Flammability of Solvents
- Cold Burns/Frost Bite
- High Pressure Operations
- Gas Leaks
- Insufficient Airflow
- Oxygen-Deficient Environment
- Fire Hazards
- Inadequate Fire Suppression
- No Hazardous Exhaust
- Electrical Hazards
- Extra Security Concerns
- Hazardous Chemical & Pesticide Exposures
- Weapons, Other Drugs
- Blocked Means of Egress

QUESTIONS?

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