



OSHA REGIONAL INSTRUCTION

U.S. DEPARTMENT OF LABOR

Occupational Safety and Health Administration

DIRECTIVE NUMBER: CPL 24-04 (EP)

SUBJECT: Local Emphasis Program for Cannabis Industries

REGION: Denver Region

SIGNATURE DATE: July 18, 2024

EFFECTIVE DATE: July 18, 2024

ABSTRACT

Purpose: The purpose of this Instruction is to implement a Local Emphasis Program (LEP) to reduce the incidence of serious health and physical injury or death from hazards associated with cannabis processing, growing, cultivating and product manufacturing facilities. The employers to be included in this LEP are those where marijuana and hemp processing and product manufacturing activities are known to be in operation.

Scope: This Instruction applies to establishments in the industry descriptions listed in this directive within the jurisdictions of the Englewood and Denver area offices.

References: OSHA Instruction CPL 04-00-002, Procedures for Approval of Local Emphasis Programs (LEP), November 13, 2018

Cancellations: None

State Impact: None

Action Offices: Englewood and Denver Area Offices

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By and Under the Authority of

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Executive Summary

Workers employed in the cannabis industry are exposed to a variety of safety and health hazards. Activities such as extraction and production of concentrates involve the use of flammable liquids and have resulted in serious injuries to employees from burns and explosions. Other hazards such as electrical issues, exposure to hazardous chemicals, and unguarded machinery are also prevalent.

The intent of this Regional Emphasis Program is to encourage employers to take steps to address hazards, ensure facilities are evaluated to determine if they are in complying with all relevant OSHA requirements, and to help them correct hazards, thereby reducing potential injuries, illnesses, and death for their workers.

The Englewood and Denver Area Offices propose to accomplish this through outreach and enforcement activities. Outreach activities will include training sessions with stakeholders and electronic information sharing activities through newsletters. Enforcement activities will include, but not be limited to, the inspection and review of cannabis processing, growing, cultivation and product manufacturing activities, including the evaluation of working conditions, records, and safety and health programs to identify and obtain corrections of workplace hazards at applicable inspection sites.

Significant Changes

This is a new instruction.

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I. Purpose.

This Instruction establishes policies and procedures for implementing a Local Emphasis Program (LEP) to conduct programmed inspections of facilities involved with the processing, manufacturing, growing and cultivation of cannabis products. The employers to be targeted are in the marijuana and hemp industries (cannabis industry).

The goal of this LEP is to identify and reduce or eliminate workplace incidences of health and physical hazards associated with cannabis processing, growing, cultivation and product manufacturing which are causing or likely to cause serious health or physical injury or death.

II. Scope.

The Instruction applies to facilities involved with cannabis operations located within the jurisdiction of the Englewood and Denver Area Offices.

III. References.

- A. OSHA Instruction CPL 02-00-164, Field Operations Manual (FOM), April 14, 2020, or the most recent version at the time of the inspection opening conference. <https://www.osha.gov/enforcement/directives/cpl-02-00-164/>
- B. OSHA Instruction CP 04-00-002, Procedures for Approval of Local Emphasis Program (LEPs), November 13, 2018. <https://www.osha.gov/enforcement/directives/cpl-04-00-002>
- C. OSHA Instruction CPL 02-00-025, Scheduling System for Programmed Inspections, January 4, 1995. <https://www.osha.gov/enforcement/directives/cpl-02-00-025>
- D. November 12, 2014, OSHA Memorandum: Establishments – Targeting Lists for Emphasis Programs. <https://www.osha.gov/memos/2014-11-12/establishment-targeting-lists-emphasis-programs>
- E. Title 29 Code of Federal Regulations, Part 1910 and 1928. <https://www.osha.gov/laws-regs/regulations/standardnumber/1928>
- F. December 3, 2014, OSHA Memorandum: Procedures for Local and Regional Emphasis Programs. <https://www.osha.gov/memos/2014-12-03/procedures-local-and-regional-emphasis-programs>
- G. OSHA Instruction CPL 02-00-170, Enforcement Exemptions and Limitations under the Appropriations Act, July 18, 2024; or the most recent version at date of inspection opening conference. <https://www.osha.gov/enforcement/directives/cpl-02-00-051>

- H. Colorado Fire Marshals’ Special Task Group [2016]. “Marijuana Facility Guidance v.1”. Golden, CO: Fire Marshal’s Association of Colorado.
- I. NIOSH [2018]. Evaluation of a Medicinal Cannabis Manufacturing Facility with an Indoor and Outdoor Grow Operation. By Couch J, Wiegand D, Grimes GR, Green BJ, Lemons R, Glassford E, Zwack L, Jackson SR, Beezhold, D. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, HHE Report No. 2016-0090-3317.
- J. NIOSH [2017]. Evaluation of Potential Hazards during Harvesting and Processing Cannabis at an Outdoor Organic Farm. By Couch J, Victory K, Lowe B, Burton NC, Green BJ, Nayak A, Lemons AR, Beezhold D. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, HHE Report No. 2015-0111-3271.
- K. Colorado Department of Public Health and Environment [2017]. Guide to Worker Safety and Health in the Marijuana Industry. By Colorado Marijuana Occupational Health and Safety Workgroup. Denver, CO: CDPHE Occupational Health Program.
- L. Colorado State University [2017]. Work and Well-Being in the Colorado Cannabis Industry. By Walters KM, Fisher, GG, Tenny L, Kraiger K. Aurora, CO: CSU, Colorado School of Public Health, Center for Health, Work, and Environment.
- M. MMWR Morbidity and Mortality Weekly Report (MMWR), November 17, 2023, Virginia M. Weaver, MD1; Jeremy T. Hua, MD2; Kathleen M. Fitzsimmons, PhD3; James R. Laing3; Wigdan Farah, MBBS4; Anne Hart5; Trapper J. Braegger6; Michelle Reid, MPH3; David N. Weissman, MD., Fatal Occupational Asthma in Cannabis Production.
https://www.cdc.gov/mmwr/volumes/72/wr/mm7246a2.htm?s_cid=mm7246a2_w

IV. Cancellations.

N/A

V. Expiration

This LEP expires five years from the date of publication.

VI. Action Offices.

Englewood and Denver Area Offices

VII. Background.

- A. Hazards: Employees in the cannabis industry are exposed to a variety of safety and health hazards
1. The production of marijuana/hemp concentrates involves numerous serious hazards such as exposure to potential fire and explosion hazards from the use of flammable liquids and compressed gases. The handling and transfer of flammable solvents can also result in health hazards, including employee exposure to chemicals such as hexane, heptane, ethanol, and butane, displacement of oxygen from carbon dioxide systems and skin contact with solvents.
 2. Growing and other production operations such as sorting, stripping, and drying can expose workers to unguarded machinery, pesticides, molds, and dusts. In 2022 a cannabis worker in Massachusetts suffered a fatal asthma attack from breathing airborne marijuana particulate at a marijuana processing facility. (Weaver 2023)NIOSH has also performed Health Hazard Evaluations (“HHE”) on harvesting and processing cannabis in an outdoor organic farm. Air samples collected to analyze exposure to bacterial microbes showed that employees were exposed to microbes that were known to cause adverse health effects such as hypersensitivity pneumonitis, chronic bronchitis, organic dust toxic syndrome, and asthma and allergic sensitization (NIOSH, 2017). A similar HHE conducted at an indoor/outdoor grow operation collected particulate matter dust samples for total dust and respirable fraction dust ranges. Sample results for respirable dust averaged 0.78 milligrams per cubic meter (mg/m³) with a maximum exposure of 4.4 mg/m³ in a 45-minute sampling period. Sample results for total dust averaged 3.4 mg/m³ with a maximum exposure of 20.5 mg/m³ in a 45-minute sampling period. (NIOSH, 2018). Samples collected in NIOSH’s HHE only represented a single employee conducting one grinding task in the afternoon over a 45-minute period. Higher exposure levels could be anticipated in facilities processing greater amounts of dried cannabis or grinding for longer periods of time.
 3. Electrical hazards from improper temporary wiring in grow areas and improper electrical installations in production areas is common. Many of the production areas are classified as hazardous locations due to the presence of flammable materials, such as butane or propane, being used in the process.
 4. Workers may also be exposed to material handling and storage hazards such as the improper use of powered industrial trucks and the improper storage of flammable materials. Additionally, workers have stated in wellness surveys that work-related musculoskeletal disorders and injuries are a common source of concern in the cannabis industry (Walters et. al,

2017).

5. Many of the extraction facilities involve the processing and handling of large quantities of flammable solvents such as ethanol. Hazardous solvents such as methylene chloride have also been observed. Workers may be expected to respond to spills and other emergencies, thereby exposing them to hazards associated with inadequate emergency response protocols.

The Denver and Englewood Area Offices have conducted 44 complaint, fatality, and referral inspections in the past 7 years, as well as several accident investigations including three fatalities at facilities in this industry. Several of these investigations have involved fires and explosions that have occurred during the extraction process and other activities involving the handling of flammable liquids. Most of these inspections have resulted in multiple citations being issued. Several State OSHA plans, including California and New Mexico, have also investigated explosions at extraction facilities and issued citations as a result. As identified in the chart, below, the most common citations involve violations of the hazard communication standard, respiratory protection, flammable liquid storage and handling, electrical hazards, fall hazards, and personal protective equipment.

Standard Cited	Number of Inspections Cited (% of 44 inspections)
Hazard Communication	29 (66%)
Respiratory Protection	18 (41%)
Personal Protective Equipment (Excluding RP)	9 (20%)
Flammable Liquids	8 (18%)
Electrical Hazards / Classified Locations	7 (16%)
Machine Guarding/LOTO	6 (14%)
Fall Protection and Walking/Working Surfaces	4 (9%)

In 2017, the CDC Mountains and Plains Educational Research Center (“MAP ERC”) conducted a survey on work-related safety, health, and well-being involving 214 workers in the Colorado cannabis industry. The survey found that only 15% of workers received continuous, structured safety and health training and 23% of workers never received any safety or health training. Training that was provided to surveyed workers varied greatly in both quantity and quality. Additionally, several workers reported chronic adverse health effects such as Workplace Musculoskeletal related Disorders or respiratory illnesses (Walters et. al, 2017).

Colorado employers are provided training material through the Colorado Department of Public Health and Environment, Marijuana Enforcement Division, however the training does not adequately address safety hazards such as control of flammable vapors or electrical safety. The training materials provide only a cursory explanation of the

importance of controlling exposure to hazardous chemicals, and do not include adequate resources for employers to educate themselves or develop workplace-specific policies for hazard communication or personal protective equipment (CDPHE, 2017).

Fire safety professionals in Colorado also created the Colorado Fire Marshals' Special Task Group in order to educate fire departments in rural areas of hazards that might be encountered while inspecting cannabis facilities (Colorado Fire Marshals' Special Task Group, 2016). The guidance developed by the Special Task Group contains valuable information about the hazards presented by flammable liquids, electrical safety, and the use of hazardous chemicals; however, this guide is not listed on the CDPHE's Marijuana Enforcement Division's website as a resource for cannabis employers. As a result, cannabis employers in Colorado do not appear to be receiving comprehensive information on these topics.

All of OSHA's inspection activity for the cannabis industry has been the result of un-programmed activity initiated by complaints, referrals, and accidents. By targeting inspection activity to employers in the cannabis industry, OSHA hopes to reduce the exposure to hazards leading to injuries and fatalities experienced by employers who are engaged in the extraction and manufacturing of cannabis products for medicinal or recreational use.

VIII. Inspection Scheduling and Selection of Sites.

The procedures outlines in the November 12, 2014, OSHA Memorandum: Establishments – Targeting Lists for Emphasis Programs will be followed.

- A. Establishments that have received a comprehensive inspection within the previous 60 months of the creation of the current inspection cycle will be deleted from the list.
- B. The Area Office may also delete an establishment if it is determined that:
 - 1. The establishment is a residence.
 - 2. The establishment is not in the scope of the LEP (e.g., the establishment is clearly conducting business other than that covered by the LEP).
 - 3. There is no evidence that the facility exists (e.g., no phone or internet listing; no registration with the Secretary of State; Google Earth or Street View shows conclusively that the business is non-existent).
- C. Establishments lists will be obtained using the following methods:
 - 1. For industries involving marijuana processing and product manufacturing, a master list of sites will be obtained from the Colorado Department of Revenue, Marijuana Enforcement Division website.

2. For industries involving hemp processing and product manufacturing, a master list of establishments will be obtained from the Colorado Department of Public Health and Environment, Manufactured Foods Approved Source List and Colorado Department of Agriculture public databases.
 3. These lists will be combined and randomized in Microsoft Excel.
- D. In the event a cycle is not completed on or before expiration of this Instruction, the cycle will be extended into the new fiscal year, provided this Instruction is renewed. The outstanding cycle will be completed before establishments are selected from the new master list. If the Instruction is not renewed, the outstanding cycle is effectively cancelled, and the Area Office is not obligated to complete inspections on the remaining establishments within the cycle.
- E. Establishments within a cycle may be inspected in any order so that Area Office resources are efficiently used. Once a cycle is begun, all establishments in the cycle are to be inspected before a new cycle is started, except that carryovers will be allowed as provided for in OSHA Instruction CPL 02-00-025. If establishments are carried over into the new fiscal year, the Area Office shall ensure that each establishment remaining in the cycle meets the criteria in paragraph VIII, above.

IX. Inspection Procedures

- A. Inspections will be conducted in accordance with this Instruction and the FOM.
- B. Inspections shall be comprehensive (except as indicated in items C and D below) and address both safety and health hazards in all areas of the establishment where cannabis processing, cultivating, growing and product manufacturing activities take place.

This will include a review of all production areas of each establishment to include, but not be limited to, storage of materials, the manufacturing processes for hemp and marijuana products such as CBD oil, hash oil, edibles, extraction and manufacturing processes and equipment, chemical storage and handling, piping systems, sorting, Liquid Petroleum Gas (LPG) and CO2 systems, compressed gas systems, fire protection systems, packaging and shipping areas, electrical equipment, storage areas, growing and cultivating areas and laboratories.

For those establishments where the primary business is a retail trade establishment and there is a processing, manufacturing component or

growing/cultivating operation as a secondary part of the business, the inspection scope will only include the processing, manufacturing, or growing/cultivating portion of the establishment. Inspections will not be conducted at establishments that are exclusively retail and perform no processing, growing/cultivating, or manufacturing.

- C. Reports of imminent danger, fatality/catastrophe, complaints, and referrals shall be scheduled as unprogrammed inspections and shall be inspected in accordance with the applicable provisions of the FOM. This does not, however, limit the Area Office's authority to conduct an inspection pursuant to this LEP. Non-formal complaints will be inspected pursuant to the provisions of the FOM. If a complaint inspection is conducted at an establishment that is listed on a current inspection cycle, the inspection will be expanded to comprehensive.
- D. Appropriations Act: [OSHA Instruction CPL 02-00-170, Enforcement Exemptions and Limitations under the Annual Appropriations Act](#) will be adhered to in implementation of this program. The most updated list will be used at the time of the opening conference to determine eligibility for inspection.

For inspections in establishments of employers with 10 or less employees that fall under CPL 02-00-170, Exemptions and Limitations under the Current Appropriations Act, the inspection scope will be “health” only and will be partial in scope unless they are classified as farms and have not had a temporary labor camp in the last 12 months, in which case no inspection activity will be permitted. Inclusion of employers with 10 or less employees is necessary to ensure that small employers are in compliance with OSHA regulations pertaining to health hazards.

- E. In the event a non-formal complaint is received by the Area Office involving a hazard associated with this Instruction, the Area Office will refer to guidance set forth in the FOM.

X. Outreach

At least 90 days prior to commencing inspection activity under this LEP, the Regional, Englewood and Denver Area Offices will conduct outreach activities intended to reach as many employers and stakeholders as is practicable. Outreach could be in the form of mailings to stakeholders, speeches, training seminars, and newsletters to groups identified by the Compliance Assistance Specialist (CAS) and CSHOs.

Outreach activities will be conducted to raise awareness of the hazards associated with cannabis growing and manufacturing, and to inform stakeholders and employers of the elements of the LEP. The Area Offices will conduct mailings to stakeholders within their jurisdictions and will further encourage stakeholders to participate in training, assist in

the dissemination of information from this LEP, and participate in any other outreach activity where stakeholder participation would benefit the program. Stakeholders may include employers, manufacturer's representatives, industry periodical publishers, safety and health consultants, safety councils, and industry associations.

XI. OSHA Information System (OIS) Coding

The following will address only the changes or additions to OIS coding procedures for inspections conducted under this LEP:

- A. On the OIS Inspection Form, programmed inspections scheduled under the procedures of this LEP shall be coded as "CANNABIS" in the Local Emphasis Program block and as "Programmed Planned" in the Initiating Type block. Inspections under this LEP will be typically coded as "Safety" inspections in the "Inspection Category" block unless the inspection is predominately health related in nature. In this case the inspection should be coded as "Health." Health only inspections will be coded as "Health".
- B. On the OIS Inspection Form, inspections involving cannabis industry safety or health issues which are initiated as a result of a complaint, referral, or fatality/catastrophe (i.e., Section IX.C) shall be coded as "CANNABIS" in the Local Emphasis Program block and as the appropriate "unprogrammed" activity in the "Initiating Type" block regardless of whether they are listed on a cycle list.
- C. Programmed Inspections under this LEP will be labeled as "Comprehensive" in OIS with the exception of "health only" inspections which will be labeled as "partial".

Program Report

No later than midway through the life of the program and at the end of the program the Regional Office will prepare a program report of this LEP. At a minimum, the report should respond to the requirements of CPL 04-00-002, Section VIII E.1