



The Cannabis Industry: Fire Department Requirements

RVFD Standard 4.1



**Rio Vista Fire Department
350 Main St.
Rio Vista, CA. 94571**

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Updated December 2018

The purpose of this document is to assist owners, agents, contractors and developers with understanding the Fire & Life Safety inspection process and the Fire Department's requirements in Cannabis facilities in Rio Vista, California.

Unless the issue directly relates to Fire & Life Safety, the Fire Department will defer the enforcement of conditions not contained in this document to the proper regulatory authority (i.e. Planning, Code Enforcement, Police or State Agencies).

This information packet will not address every code or requirement, but rather is intended to give an overview of key areas of concern. Applicants are encouraged to follow the California Fire Code (CFC), NFPA 1 - Chapter 38 (scheduled for release in November 2017), the California Health and Safety Code (CH&S), California Building Code (CBC), California Electrical Code (CEC) and the California State *Medical Marijuana Regulation and Safety Act* (MMRSA) when developing plans and presenting business plans to the City.

General Fire Department Requirements:

- A Fire & Life Safety Inspection is required, prior to start of operation, even if no improvements to the property are being proposed.
- A Fire & Life Safety Inspection, as defined by the Health & Safety Code Section 13146.2(a), shall be required every 3 months for Occupancy class F and every 6 months for Occupancy class B.
- For new construction projects, see the Guide to *Fire Department Access Roads*
- All applicants will need to provide a detailed scope of work related to all business activities and products utilized in their business model or process. List license type, proposed storage configurations and hazardous materials to be utilized. Prior to finalization of plans, an annual operation permit will need to be secured with the Fire Department (See City master fee schedule).
- Reporting of emergencies, coordination with emergency response forces, emergency plans and procedures for managing or responding to emergencies shall comply with the provisions of CFC Sec 401.
- Emergency evacuation drills complying with provisions of this section shall be conducted at least annually for Group F occupancies listed in CFC Sec 404.0 or when required by the fire code official. Drills shall be designed in cooperation with the California Fire Code and local authorities per CFC Sec 405.
- The provisions of CFC Sec 407 shall be applicable where hazardous materials subject to permits under CFC Sec 5001.5 are used and/or stored on the premises or where required by the fire code official.
- This Industry is relatively new to most Fire Departments. New information is available on the equipment and processes used. NFPA standards are still being developed (at the

date this paper is released); therefore, the Fire Department retains the right to add, delete or change requirements with regard to Cannabis Facilities.

Security/Access

1. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the Fire Code Official is authorized to require a key box to be installed in an approved location. The key box shall be of an approved type and shall contain keys to gain necessary access as required by the fire code official per CFC Sec 506.1
2. Exterior access roads (new development): see the *Fire Department Fire Access Road Requirements version 2017*.
3. It is important that access as well as emergency egress inside the structures, for employees as well Firefighters, is addressed. This may require joint training and coordination. Posted evacuation plans are also required as per the CFC.
4. Alterations including the elimination of doors or windows on existing buildings must be approved by the Fire Code Official. The use of plywood, or other temporary solutions, to cover existing structural components, in an effort to shield or enhance lighting, is strictly prohibited.

Pre-Incident Pre-Planning

1. For the purposes of safe and efficient incident response, pre-incident planning must take place in coordination with Fire Staff and facility staff or owners.
2. Names and addresses of responsible parties must be provided and a 24 hour emergency contact must be kept on file.
3. The Fire Department will develop a "Fire Pre-Plan" document for reference by staff and mutual aid partners. The above information will be contained in that plan along with storage location of hazardous materials.

Fire Suppression, Alarm and Detection Systems

1. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in CFC Sec 903 and as amended by the Rio Vista Municipal Code. A change in the occupancy of the space or an expansion of square footage could require the installation of a fire suppression system for the proposed space (50/50 rule). The Fire Code Official retains the right to waive or increase these requirements.
2. Automatic fire-extinguishing systems, other than automatic sprinkler systems, shall

be designed, installed, inspected, tested and maintained in accordance with the provisions of CFC Sec 903 and the applicable referenced standards.

3. Portable fire extinguishers shall be installed in F, B and U occupancy groups per CFC Sec 906. The size and distribution of portable fire extinguishers shall be in accordance with CFC Sec 906.
4. Duct smoke detectors complying with UL 268A shall be installed in accordance with the CBC, CFC, CMC and NFPA 72.
 - a. In the main return air and exhaust air plenum of each air-conditioning system having a capacity greater than 2,000 CFM. Such detectors shall be located in a serviceable area downstream of the last duct inlet.
 - b. At each connection to a vertical duct or riser serving two or more stories from a return air duct or plenum of an air-conditioning system.
5. An approved fire alarm system installed in accordance with the provisions of the CFC and NFPA 72 shall be provided in new buildings and structures in accordance with CFC Sec 907.2 and provide occupant notification in accordance with CFC Sec 907.6, unless other requirements are provided by another section of this code.
6. Detection systems with on-site and off-site monitoring shall be required with the use of CO2. External lights and alarm activation shall be required as follows:
 - a. 2,000 ppm Blue light (exterior / Alpha Side)
 - b. 5,000 PPM Amber Light (exterior / Alpha Side) with full alarm activation.

Storage

1. The smoking or carrying of a lighted pipe, cigar, cigarette or any other type of smoking paraphernalia or material is prohibited in the areas indicated in CFC Sec 310.
2. Storage of combustible materials in buildings shall be orderly. Storage shall be separated from heaters or heating devices by distance or shielding so that ignition cannot occur per CFC Sec 315.
3. Any security device or system that emits any medium that could obscure a means of egress in any building, structure or premise shall be prohibited per CFC Sec 316.5.
4. High-piled storage or rack storage in any occupancy group shall comply with the CFC

Chapter 32.

5. Storage, use and handling of compressed gases in compressed containers, cylinders, tanks, and systems shall comply with CFC Chapter 53 including those gases regulated elsewhere in the CFC.
6. Compressed gases classified as hazardous materials shall also comply with CFC Chapter 50 for general requirements and chapter addressing specific hazards, including CFC Chapters 58 (Flammable Gases), 60 (Highly Toxic and Toxic Materials), 63 (Oxidizer, Oxidizing Gases and Oxidizing Cryogenic Fluids) and 64 (Pyrophoric Materials).
7. The storage, use and handling of all hazardous materials shall be in accordance with CFC Chapter 50. The maximum allowable quantity of hazardous materials per control area will be established using CFC Sec 5003.1. Applicant will need to contact the Fire Department for hazardous materials storage.
8. Hazardous Materials Inventory Statement (HMIS) per CFC Sec 5001.5.2. An application for building permit shall include an HMIS. The HMIS shall include the following information:
 - a. Product name.
 - b. Component.
 - c. Chemical Abstract Service (CAS) number.
 - d. Location where stored or used.
 - e. Container size.
 - f. Hazard classification.
 - g. Amount in storage.
 - h. Amount in use-closed systems.
 - i. Amount in use-open systems.

Cannabis Facility Specific Requirements by Type

In addition to these requirements, applicants are encouraged to refer to California State *Medical Marijuana Regulation and Safety Act (MMRSA)*

Cultivation Facilities: Annual Fire Department Operational Permit Required

1. Mixed use grow facilities (manufacturing) are to meet requirements of occupancy F-1, Moderate-hazard.
2. Grow facilities for the exclusive use of plant production may be classified as a U occupancy.

3. Grow lights must be installed per the manufacture instructions and wired per CEC article 410.
 - A. Remote ballasts shall be installed as near to the lamp as practicable to keep the secondary conductors as short as possible. CEC article 410.144(B).
 - B. Ballast secondary cord/conductors cannot pass through partitions and must be visible its entire length outside the fixture. CEC article 410.62(C)(1).
4. High-Intensity Discharge Lighting. Luminaires that use a Metal Halide lamp, other than a thick- glass parabolic reflector lamp (PAR), shall be provided with a containment barrier (LENS) on the fixture. CEC article 410.130(F)(5).
5. NM cable (Romex) is not allowed for use in damp locations (grow rooms) (CEC Sec 334.10). Approved wiring methods utilized in grow facilities in accordance with wet use "Wiring Methods and Materials", (CEC Chapter 3).
6. Cultivation facility exhaust outlets must be located 10' from the property lines, operable openings into the building and from mechanical air intakes (CMC § 506.9).
7. Cultivation area ventilation air rate shall be supplied with ventilation rate of 15 cfm per person for the number of occupants. The expected number of occupants shall be specified by the building designer or one half of the maximum occupant load assumed for egress purposes in the California Building Code, whichever is greater.

Manufacturing Facilities: Annual Fire Department Operational Permit Required

1. Facilities used for processing medical marijuana into foods, beverages, salves, inhalants, tinctures or other forms for human consumption or use are subject to review and approval by the Solano County Environmental Health Division. A separate permit application may be required through their office.
2. Type 6 Manufacturing facilities are to meet CBC, Chapter 3 requirements based upon Use and Occupancy Classification for a Factory Industrial, F-1; Moderate-hazard Occupancy. CBC Sec 306.2.
3. Portions of the Marijuana infused product facilities may be considered a Hazardous Location based on the method used for the THC extraction and the amount of hazardous material stored. Full disclosure of the extraction process will be required at the time of permit application.
4. Cannabis facilities shall submit as a part of their permit application a comprehensive description of the program and process proposed for the operation and production at the facility. The documentation shall, if applicable, include all of the following:
 - A. A plan that specifies all means to be used for extracting, heating, washing, or

otherwise changing the form of the marijuana plant or for testing any marijuana or marijuana product.

- B. A description of all toxic, flammable, or other materials regulated by a federal, state, or local government that will be used, kept, or created at the facility, the quantities and location of such materials, and the manner in which such materials will be stored.
5. Storage, use and handling of compressed gases in compressed gas containers, cylinders, tanks and systems shall comply with CFC, NFPA Standards, H&SC and CCR, including those gases regulated elsewhere in this code.
 6. Processing facilities, who by application or code, are not required to install Fire Suppression Sprinkler Systems will be required to operate in non-combustible construction. Facilities may be required to exceed CBC requirements with 4-hour walls and 2-hour self-closing doors.

Type 7 Manufacturer 2 (Volatile)

All facilities are to meet CBC, Chapter 3 requirements based upon use and Occupancy class for H-5 Occupancies.

- c. All requirements of CFC Chapter 50 & 57 shall be met and the Fire Code Official reserves the right to limit storage of hazardous materials on site in quantities less than allowable by CFC Section 5704.
 - d. Flammable materials shall be classified in accordance with CFC Chapter 2.
 - e. Electrical equipment used within the exhaust hoods shall be rated for use in flammable atmospheres.
 - f. Compressed gases classified as hazardous materials shall also comply with CFC Chapters 50 and 53 for general requirements and chapters addressing specific hazards, including Chapters 58 (Flammable Gases), 60 (Highly Toxic and Toxic Materials), 63 (Oxidizers, Oxidizing Gases and Oxidizing Cryogenic Fluids) and 41 (Pyrophoric Materials).
- Heating of flammable or combustible material over an open flame is strictly prohibited.

Testing/Laboratory : Annual Fire Department Operational Permit Required

1. Type 8 Testing/Laboratory facilities are to meet CBC, Chapter 3 requirements based upon Use and Occupancy Classification for a Business Group, B Occupancy. CBC § 304.1.

2. Flammable and combustible liquid extraction process, where the liquid is boiled or evaporated, shall be located within a hazardous exhaust fume hood, or a sealed self-contained, blast proof unit.
3. Required hoods shall meet the requirements of CMC & CFC.
4. Hazardous materials storage, use, handling and waste materials shall be reported through the submitted plans.

Retail: No annual Fire Department Operational Permit Required

- Dispensary facilities are to meet requirements of the CFC for a Mercantile Group, M Occupancy. For dispensaries only (*not mixed use*) the Fire Department has no special requirements. These occupancies are subject the CFC and an annual Fire & Life Safety Inspection

Distributor/Microbusiness: No Annual Fire Department Operational Permit Required

- Facilities that include storage and distribution of food products in non-combustible containers shall be classified in Occupancy Group S-2 “Low Hazard Storage”. These occupancies are subject the CFC and an annual Fire & Life Safety Inspection
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License Classifications:

- Type 1—Cultivation; Specialty outdoor; Small.
- Type 1A—Cultivation; Specialty indoor; Small.
- Type 1B—Cultivation; Specialty mixed-light; Small.
- Type 1C—Cultivation; Specialty cottage; Small.
- Type 2—Cultivation; Outdoor; Small.
- Type 2A—Cultivation; Indoor; Small.
- Type 2B—Cultivation; Mixed-light; Small.
- Type 3—Cultivation; Outdoor; Medium.
- Type 3A—Cultivation; Indoor; Medium.
- Type 3B—Cultivation; Mixed-light; Medium.
- Type 4—Cultivation; Nursery.
- Type 5—Cultivation; Outdoor; Large.
- Type 5A—Cultivation; Indoor; Large.
- Type 5B—Cultivation; Mixed-light; Large. 2
- Type 6—Manufacturer 1.
- Type 7—Manufacturer 2.

Type 8—Testing laboratory.

Type 10—Retailer.

Type 11—Distributor.

Type 12—Microbusiness.