

International Building Code

SECTION 202

MISCELLA. A mixture, in any proportion, of the extracted oil or fat and the extracting solvent

SECTION 306

FACTORY GROUP F

306.1 Factory Industrial Group F. Factory Industrial Group F occupancy includes, among others, the use of a building or structure, or a portion thereof, for assembling, disassembling, fabricating, finishing, manufacturing, packaging, repair or processing operations that are not classified as a Group H hazardous or Group S storage occupancy.

306.2 Moderate-hazard factory industrial, Group F-1.

Factory industrial uses that are not classified as Factory Industrial F-2 Low Hazard shall be classified as F-1 Moderate Hazard and shall include, but not be limited to, the following:

Aircraft (manufacturing, not to include repair)

Appliances

Athletic equipment

Automobiles and other motor vehicles

Bakeries

Beverages: over 16-percent alcohol content

Bicycles

Boats

Brooms or brushes

Business machines

Cameras and photo equipment

Indoor cannabis plant cultivation

Plant oil extraction or processing

Canvas or similar fabric

Carpets and rugs (includes cleaning)

Clothing

Construction and agricultural machinery

Disinfectants

Dry cleaning and dyeing

Electric generation plants

Electronics

Engines (including rebuilding)

Food processing establishments and commercial kitchens not associated with restaurants, cafeterias and similar dining facilities more than 2,500 square feet (232 m²) in area.

Furniture

Hemp products

Jute products
Laundries
Leather products
Machinery
Metals
Millwork (sash and door)
Motion pictures and television filming (without spectators)
Musical instruments
Optical goods
Paper mills or products
Photographic film
Plastic products
Printing or publishing
Recreational vehicles
Refuse incineration
Shoes
Soaps and detergents
Textiles
Tobacco
Trailers
Upholstering
Wood; distillation
Woodworking (cabinet)

SECTION 429

PLANT PROCESSING, EXTRACTION, AND INDOOR CULTIVATION FACILITIES

429.1 General

Plant processing, extraction, and indoor cultivation facilities shall comply with 429.1 through 429.6, Chapter 4 of the International Mechanical Code, and Chapter 39 of the International Fire Code.

429.2 Application

The extraction process includes the act of extraction of the oils and fats by use of a solvent, desolventizing of the raw material, production of the miscella, distillation of the solvent from the miscella and solvent recovery. The use, storage, transfilling and handling of hazardous materials in these facilities shall comply with this code and the International Fire Code.

429.2.1 ^[JC1] **Existing Buildings or facilities.** Existing buildings or facilities used for the processing of plants shall comply with this section. Existing extraction processes where the medium of extraction or solvent is changed shall comply with this section.

429.3 Construction Requirements

The construction of buildings or spaces within buildings used for the extraction process that include the act of extraction of the oils and fats by use of solvent, desolventizing of the raw material, production of the miscella, distillation of the solvent from the miscella and solvent recovery shall comply with Sections 429.3.1 through 429.3.3.

429.3.1 Noncombustible construction. Extraction equipment and processes materials shall be located in a room constructed of noncombustible materials.

Exception: Extraction process that utilizes non solvent or CO2 extraction methods.

429.3.2 Prohibited occupancies. Extraction equipment and extraction processes shall not be located in any building containing a Group A, E, I or R occupancy.

extraction equipment and extraction processes utilizing materials classified as physical hazards in accordance with Section 307 of this code and the International Fire Code® are not permitted in any building containing a Group A, E, I or R occupancy^[RJ2]

429.3.3 Location. The extraction equipment and extraction processes shall be located in a room dedicated to extraction and the room shall not be used for any purpose. There shall be no general storage or extraction media storage in the extraction room.

429.4 Interior finish the interior finish of walls and ceilings in plant growing, processing and extraction facilities to comply with this section and Section 803 of this code.

429.4.1 Plastic, mylar and other thin sheeting. Plastic, mylar and other thin sheeting that covers any walls or ceilings shall comply with this section and Section 803.

429.4.2 Installation. Plastic, mylar and other thin sheeting shall not be hung from ceilings or suspended overhead structures to create divider walls or rooms.

429.5 Means of egress Means of Egress within a cultivation room shall meet the requirements of this section and chapter 10.

429.5.1 Exits. Extraction rooms using hazardous materials shall have a minimum of one exit access door that swings in the direction of egress travel.

429.5.2 Door hardware. The exit access door shall be equipped with panic hardware or fire exit hardware and a self-closing or automatic-closing device.

429.5.3 Required means of egress. Required means of egress shall be provided with a minimum clear width per the requirements of Section 1005; mobile and relocatable equipment shall not obstruct the required clear width.

429.5.4 Egress Headroom. Headroom required by Section 1003.3 shall be maintained for required egress paths along with other aisles provided for employee use.

429.6 Ventilation. Ventilation shall meet the requirements of this section and chapters 4 and 5 of the *International Mechanical Code*

429.6.1 Extraction room ventilation. Extraction room ventilation shall be installed in accordance with Chapter 7 of NFPA 45, and section 408 the *International Mechanical Code*.

429.6.2 Cultivation room ventilation. Cultivation room ventilation shall be in accordance with

5307.4 Carbon dioxide enrichment systems. The design, installation and maintenance of carbon dioxide enrichment systems with more than 100 pounds (45.4 kg) of carbon dioxide, and carbon dioxide enrichment systems with any quantity of carbon dioxide having a remote fill connection, and carbon dioxide enrichment systems create CO₂ as a by-product for enrichment shall comply with Sections 5307.4.1 through 5307.4.7.

429.6.3 Ventilation of heat sources – lighting and gas fired appliances (CO₂ generators)^[RJ3]

429.7 Gas detection system For extraction processes utilizing flammable gases as solvents, a gas detection system complying with Section 916 and the chapter 39 of the IFC shall be provided.

429.8 Alarm systems

429.8.1 Fire alarm and detection systems. An *approved* fire alarm system installed in accordance with the provisions of this code and NFPA 72 shall be provided

429.8.2 Gas alarm and detection systems. Upon activation of a gas detection alarm, alarm signals or other required responses shall be as specified by the section of this code requiring a gas detection system. Audible and visible alarm signals associated with a gas detection alarm shall be distinct from fire alarm and carbon monoxide alarm signals.

429.8.2.1 Alarm notification requirements Audible and visible alarm signals associated with a gas detection alarm shall be distinct from fire alarm and carbon monoxide alarm signals.

429.9 Suppression system – Automatic sprinkler systems shall comply with section 903.

429.10 Electrical. For extraction processes utilizing hydrocarbon gases or liquids as solvents the extraction room shall be in accordance NFPA 70

429.11 Emergency Power. For extraction processes utilizing hydrocarbon gases or liquids as solvents, the extraction room lighting and ventilation system shall be provided with emergency power in accordance with Section 2702.

International Mechanical Code

SECTION 408

Processing and Extraction Facilities

408.1 General. Plant processing or extraction facilities shall comply with this section, the International Building Code and Chapter 39 of the International Fire Code. The extraction process includes the act of extraction of the oils and fats by use of a solvent, desolventizing of the raw material, production of the miscella, distillation of the solvent from the miscella and solvent recovery. The use, storage, transfilling and handling of hazardous materials in these facilities shall comply with this code, the International Building Code and the International Fire Code.

408.2 Existing Buildings or facilities. Existing buildings or facilities used for the processing of plants shall comply with this chapter. Existing extraction processes where the medium of extraction or solvent is changed shall comply with this section.

408.3 Mechanical ventilation. Natural ventilation shall not be permitted. Mechanical ventilation shall be designed and installed in accordance with Section 403 and chapter 39 of the International Fire Code the exhaust airflow rate shall be provided in accordance with the requirements of Table 403.3.1.1.

408.5 Exhaust fan discharge. Exhaust fans shall be positioned so that the discharge will not impinge on the roof, other *equipment* or *appliances* or parts of the structure. A vertical discharge fan shall be manufactured with an *approved* drain outlet at the lowest point of the housing to permit drainage of oils or byproducts to an *approved* location.

408.6 Exhaust fan mounting. Upblast fans serving Plant processing or extraction facilities and installed in a vertical or horizontal position shall be hinged, supplied with a flexible weatherproof electrical cable to permit inspection and cleaning and shall be equipped with a means of restraint to limit the swing of the fan on its hinge. The ductwork shall extend not less than 18 inches (457 mm) above the roof surface.

408.7 Clearances. Exhaust *equipment* serving a plant processing or extraction facilities shall have a *clearance* to combustible construction of not less than 18 inches (457 mm).

Exception: Factory-built exhaust *equipment* installed in accordance with Section 304.1 and *listed* for a lesser *clearance*.

408.8 Termination location. The outlet of exhaust *equipment* serving Plant processing or extraction facilities shall be in accordance with Section 501.3 of this code.

Exception: The minimum horizontal distance between vertical discharge fans and parapet-type building structures shall be 2 feet (610 mm), provided that such structures are not higher than the top of the fan discharge opening.

408.9 Ducts. Exhaust duct construction shall comply with Chapter 6.

408.10 Hazardous Exhaust Systems. When the exhaust system is determined to be a hazardous exhaust system by this Code, the International Building Code or the International Fire code, that system shall be installed in accordance with section 510 of this code.

We may also have to add a section to 502 Required systems

502.21 Processing and Extraction Facilities: Processing and Extraction Facilities shall be provided with an exhaust system in accordance with Table 403.3.1.1 and section 408 of this code.

502.21 .1 Operation. The exhaust system for Processing and Extraction Facilities shall have controls that operate the system continuously when the space is occupied.

502.21.2 Post-processing. Post-processing operations, including dispensing of flammable liquids between containers, shall be performed within a hazardous exhaust fume hood rated for exhausting flammable vapors and listed in accordance with UL 1805. Electrical equipment used within the hazardous exhaust fume hood shall be rated for use in flammable atmospheres.

Exception: A hazardous exhaust fume hood is not required where an approved exhaust system is installed in accordance with NFPA 91®^[RJ4]