



Environmental Health and
Emergency Preparedness Division
101 W. 9th Street
Pueblo CO 81003
(719) 583-4307 fax: (719) 583-4992
www.pueblohealth.org

Marijuana Product Manufacturing Facility Plan Review Application

I. INSTRUCTIONS

A. Fill out this form completely and accurately.

- As stated in the Colorado Retail Food Rules & Regulations a minimum of **two (2) weeks** shall be necessary for review of both detailed plans and specifications of a proposed newly constructed marijuana product manufacturing facility and/or any proposed remodeled facility.
- Lack of complete information may delay the review and plan approval.
- Please be prepared with all necessary paperwork when scheduling a plan review appointment.
- Any changes from approved plans must be submitted in writing and approved by the Pueblo City-County Health Department.
- Plans will not be reviewed until all items are submitted, which includes application, completed plan review packet and fee.

B. Please call Environmental Health Division at 719-583-4307 with any questions or to schedule an appointment.

C. Pay the following plan review fees:

- A non-refundable plan review application fee of \$100 is due when application is submitted.
- Plan reviews, pre-opening inspections and related activities are billed at \$50/hour.

Please refer to *Section 604 Health and Safety Regulations: Retail Marijuana Manufacturing Facility* available online at

https://www.colorado.gov/pacific/sites/default/files/1%20CCR%20212-2_Retail.pdf

Please refer to *Section 11-4 Review of Plans in the Colorado Retail Food Rules & Regulations* available online at https://www.colorado.gov/pacific/sites/default/files/Reg_BOH_RetailFoodRegulations.pdf

The Marijuana Product Manufacturing Facility Plan Review Application is valid for a period of one (1) year from the date of submission.

FOR OFFICE USE ONLY:

Date Received: _____ Fee Paid: _____ Staff Initials: _____

Application Date: _____

Plan Review Form	
Establishment Information	
Name of Establishment (DBA):	Phone:
Street Address:	Cell:
City:	Fax:
State/Zip:	Email:
County:	
Business/Ownership Information	
Individual(s) or Corporate Name:	Phone:
Street Address:	Cell:
City:	Fax:
State/Zip:	Email:
Contact Information	
Name of Primary Contact:	Phone:
Street Address:	Cell:
City:	Fax:
State/Zip:	Email:
Name of Architect:	Phone:
Street Address:	Cell:
City:	Fax:
State/Zip:	Email:
Name of Contractor:	Phone:
Street Address:	Cell:
City:	Fax:
State/Zip:	Email:

Date construction is to start: _____ **Date of planned opening:** _____

THE SIGNER (OWNER/REPRESENTATIVE) AGREES THAT ANY DEFICIENCIES WILL BE CORRECTED.

SIGNATURE _____ DATE _____

Below is a checklist of required information needed to complete the plan review.

Please ensure all information is included.

****Lack of complete information will delay review and plan approval.****

Facility Floor Plan/Equipment Layout	Total Water Required For All Fixtures <i>(See Annex 1)</i>
Equipment Specifications	Menu and Food handling Procedures <i>(See Annex 2)</i>
Plumbing Plans and Schedules	
Electrical Plans and Schedules	Employee Hygiene Plan <i>(See Annex 3)</i>

Have plans been submitted to the Pueblo Regional Building Department? **Yes** **No**

Choose one or the other: Newly Constructed Extensively Remodeled

Will the facility Produce Marijuana Concentrate?

Please check all that apply.

Water-Based Marijuana Concentrate Production	Infusion of Concentrate into food items? Please use food items to be infused:
Food-Based Marijuana Concentrate Production	
Solvent-Based Marijuana Concentrate Production? Please list solvent used:	

What is the Intent of the Marijuana Concentrate?

Please check all that apply.

	Yes	No
Concentrate is to be Infused into Marijuana Products		
Concentrate is to be sold as Smokable Only		
Concentrate is to be sold wholesale for potential infusion		
Other:		

Square Footage and Area Location		
*If the establishment is in a multi-story structure, indicate on which floor each area is located.		
Please indicate square footage in each area	Square Feet (ft ²)	*Floor
Total Square Feet of the Establishment		
Square Feet of Extraction Area		
Square Feet of Infusion Area		

Days and Hours of Operation							
Insert hours below in the following format: 8 am to 8pm							
If there is a break in the hours you are open, use the second line to insert additional hours.							
Days	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Hours							
Hours							

I. FACILITY FLOOR PLAN/EQUIPMENT LAYOUT

- a. Submit floor plans drawn to scale. Plans must include the location and identification of all equipment and applicable areas. Check all that apply in the table below.

(Table 1)

Floor Plan/ Equipment Layout				
Please check applicable item				
<input type="checkbox"/>	Handsinks	<input type="checkbox"/>	Ice Bins/Ice Machines	<input type="checkbox"/> Laundry Facility Locations <input type="checkbox"/> Other: _____
<input type="checkbox"/>	Food Preparation Sinks	<input type="checkbox"/>	Water Heater Locations	
<input type="checkbox"/>	Utility Mop Sinks	<input type="checkbox"/>	Grease Interceptor/Grease Trap	
<input type="checkbox"/>	3 compartment sinks	<input type="checkbox"/>	Ventilation Hoods	
<input type="checkbox"/>	Dishmachines	<input type="checkbox"/>	Chemical Dispensing Units	
<input type="checkbox"/>	Toilet Facilities	<input type="checkbox"/>	Chemical Storage Areas	
<input type="checkbox"/>	Floor Sinks/Floor Drains	<input type="checkbox"/>	Personal Storage Areas	
<input type="checkbox"/>	Dry Storage Areas	<input type="checkbox"/>	Garbage/Recyclables Storage	

II. CONCENTRATE STORAGE/TESTING

What is required for storage of extractions and infusions?

All marijuana extractions, concentrates, and infusions intended for non-smoking oral consumption must be refrigerated at temperatures of 41°F unless otherwise approved by the Department. Approvals are based on a review of written procedures that are followed to make the product; the use of control measures described above; and any other scientific evidence submitted by the manufacturer from a certified laboratory or process authority that demonstrates the safety of the product in question.

- a. Submit plan to either hold marijuana concentrate under 41° F OR Shelf Stability Testing documentation for Marijuana Concentrate.
- b. Provide information on refrigeration/freezer capacities and hot food holding units by completing *Table 3*

(Table 3)

Refrigeration Capacities		
TYPE OF UNIT	# OF UNITS	TOTAL CUBIC
Walk-in Cooler		
Walk-in Freezer		
Reach-in Cooler		
Reach-in Freezer		
Other: _____		

- c. Complete Table 4 to indicate method of equipment installation or attach an equipment schedule, including display units.

III. PLUMBING PLANS AND SCHEDULES:

- a. Submit a plumbing plan that indicates location of the following:
 - 1. Floor sinks and floor drains
 - 2. Restrooms, toilets, urinals and hand washing sinks
 - 3. Grease trap, grease interceptor, or solids interceptor, if required by the local building, water or sanitation authority
 - 4. Hose bibs and hose reels, if provided
 - 5. Mop/utility sink
 - 6. Chemical dispensing units
 - 7. Laundry facilities, if provided
 - 8. Showers, if provide

- b. Complete *Table 5* below for all plumbing fixtures and equipment that will be drained to sewer. Indicate if fixtures or equipment will be indirectly drained (e.g. floor sink or air gap), directly connected to the sewer, or if a backflow protection device is installed.

(Table 5)

ID #	Fixture/Equipment	Indirect/Direct Drainage	Backflow (Yes / No)	Type of Backflow Device
	Warewashing Facilities			
	Dish Machines			
	Garbage Disposals			
	Handsinks			
	Food Preparation Sinks			
	Refrigeration Units			
	Ice Bins/Machines			
	Beverage Machines			
	Mop/Utility Sink			
	Chemical Dispensing Units			

Please Note: *Approved backflow protection must be supplied on all fixtures and equipment with submerged inlets. Vacuum breakers must be installed on water inlet lines for dishwashing machines, garbage disposals, and hose bibs. Continuous pressure backflow protection devices must be installed on water lines where a valve or shut off is located between the backflow device and the inlet to the fixture/equipment, such as hose reels.*

c. Complete Table 6 and Table 7 for warewashing

Will alternate equipment or methods be used in place of traditional drainboards? Yes No

If yes, indicate the methods that will be used and provide specification sheets

1. **Manual** - Include the size of each compartment (*length x width x depth*) of the warewashing sink, soiled and clean drainboard length, and whether or not a pre-rinse spray hose will be installed for each warewashing area, including bars.

(Table 6)

ID or Code on Plans	Length (inches) of Soiled Drainboard	Dimensions (inches) of Compartment Sink	Length (inches) of Clean Drainboard	Pre-Rinse Sprayer

Note: Warewashing sinks must be large enough to accommodate the largest piece of equipment or utensils used.

2. **Mechanical** - Provide make and model numbers and attach specification sheets for each warewashing machine. Please indicate if the machine(s) is a heat or chemical sanitizing. Indicate soiled and clean drainboard length, whether or not a pre-rinse spray hose will be used, utensil soak sink dimensions and water usage in gallons per hour (GPH).

(Table 7)

Mechanical Warewashing Information						
Make	Model #	Heat/Chemical Sanitizing	Drain-board Length (")	Pre-Rinse Yes/No	Utensil Soak Sink Dimensions (")	Water Usage (GPH)

- a. Is a booster heater provided? Yes No If yes, complete Table 8

(Table 8)

Booster Heater Information			
Make	Model #	kW/BTU Rating	Distance from Machine (ft)

- d. Provide the following water heater information in *Table 9* or *Table 10* where applicable. *(Please attach specification sheets)*
- i. If more than one water heater is to be installed, please indicate which plumbing fixtures each heater or system will service.

(Table 9)

Standard Tank Type Heater		
Make	Model #	KW/BTU Rating

(Table 10)

Heat Reclaim System		
Make	Model #	KW/BTU Rating

IV. MECHANICAL PLANS AND SCHEDULES:

- a. Provide plans and schedules that indicate the location of ventilation hoods and restroom exhaust fans. The ventilation schedule shall include exhaust capacities (CFMs) for all hoods and exhaust fans, including ventilation systems in restrooms. Indicate the volume of outside air each roof top and make up air unit will supply into the building.
- b. Provide make and model numbers or shop drawings for each exhaust hood and fan. Provide the size (*length x width*) of each hood. Include manufacturer’s recommended exhaust listings in CFMs.

(Table 11)

Ventilation Information					
ID # on Plans	Hood Type	Dimensions (inches) of Hood	Exhaust CFMs	Total Supply Air CFMs	Outside Air CFMs

* **Note:** Volume of outside air supplied into building must be greater than exhaust from building.

V. ELECTRICAL PLANS AND SCHEDULES:

- a. Provide plans and schedules that indicate the location of all lights.
Note: All lights in kitchen areas, dry storage areas, dishwashing areas, inside equipment, and above areas where open foods are held or displayed must be equipped with shatterproof bulbs or shields that will protect open food, utensils and single use items from broken glass if a bulb is broken.

VI. SITE PLAN:

- a. Submit a site plan which includes the following:
 - 1. Refuse enclosures and trash compactors
 - 2. Outside walk-in cooler(s)/freezer(s)
 - 3. Outside storage areas
 - 4. Location of wells and water supply line servicing the building, if applicable
 - 5. On site waste water treatment systems and sewer lines servicing the building, if applicable
 - 6. Grease interceptors/grease traps, if required by local building authority

b. **Water Supply**- Select the type of water supply system that services the establishment

- Community/Public - name of district: _____
- Non-Community - Public Water System ID Number (PWSID): _____
- Private- Provide the information requested in section “a” below and complete Table 12.

(Table 12)

Private Drinking Water Supply Information		
	Well	Spring
Depth (ft)		N/A
Method of Disinfection		
Filtration (if applicable)		

c. **Sewage Disposal** – Select the type of sewage disposal system that services the establishment

- Municipal/Public- Name of district: _____
- On-site Waste Water Treatment System – Indicate location on site plan and attach a copy of the permits for the system

VII. CHEMICAL AND PERSONAL ITEM STORAGE:

- a. Include the proposed locations of chemical and employee personal items storage areas on the floor plan.
 - 1. Describe how food, equipment, utensils, linens, and single-service articles will be protected from contamination from chemicals and personal items.

Annex 1: Worksheet for Calculating Minimum Hot Water Requirements

Use this worksheet to help calculate the hot water usage and the necessary **tank type** water heater size for your operation.

Step 1: 3-Compartment Sink

1. Measure dimensions of each compartment, if all three compartments are not the same dimensions, see note below.

Length = _____ Width = _____ Depth = _____

2. Insert measurements into this equation:

$$\left(\frac{\text{Length}}{\text{Length}} \times \frac{\text{Width}}{\text{Width}} \times \frac{\text{Depth}}{\text{Depth}} \times 3 \times 0.375 \right) \div 2.31 = \frac{\text{water usage}}{\text{water usage}} \text{GPH}$$

Note: *If all compartment sizes of the sink are not the same, then take (x 3) out of the equation, do the above calculation for each compartment, and then add the volumes to get the total gallons per hour of hot water used in the sink.*

Enter **total water usage** (GPH) into attached “Required Water Calculation Table” for “3-compartment sink”

Step 2: Dish Machine and Conveyor Pre-Rinse Water Usage

Use manufacturer’s rating in gallons per hour

Enter manufacturer’s rating (GPH) into attached “Required Water Calculation Table” for “Dish machine”.

Step 3: Laundry Machine Water Usage

Use manufacturer’s rating: _____

or 32 GPH for 9-12 pound washer

or 42 GPH for 16-pound washer.

Enter manufacturer’s rating (GPH) into attached “Required Water Calculation Table” for “Laundry machine”.

Step 4: Enter water usage totals in the appropriate rows and columns in the table on the following page, Required Water Calculation Table.

Required Water Calculation Table

1. Enter the gallon per hour (gph) rating for each type of fixture and the number of fixtures in the operation in the table below. Multiply these two numbers to calculate “maximum hourly water usage per type of fixture.”
2. Add up the “maximum hourly water usage per type of fixture” amounts in the right column to calculate “total water required by all fixtures” in the operation.
3. Enter the “total water required by all fixtures” into the equations on the next page (for gas water heater or electric water heater) to determine the necessary hot water rating for your operation.

Plumbing Fixture	Water usage (gallons per hour)	Number of fixtures	Maximum hourly water usage per type of fixture (gallons per hour)
Example: dish machine	50	1	50
Example: hand sinks	5	4	$(5 \times 4) = 20$
3-compartment sink			
3-compartment sink (bar)			
Utensils soak sink			
Dish machine			
Dish machine conveyor pre-rinse			
Laundry machine			
Hand operated pre-rinse sprayer	32		
Hand sinks (including restrooms)	5		
Mop sink	7		
Garbage can washer	35		
Employee showers	14		
Hose bib used for cleaning	35		
Total water (GPH) required by all fixtures			

Water Heater Sizing Options

There are two sizing options for water heaters: 1. Option A: Gas Water Heater, 2. Option B: Electric Water Heater. Use the following equations to determine which size of tank your facility will require depending on which tank type you decide to use.

Option A: Gas Water Heater

Step 1: Adjust the total water required by all fixtures for elevation
 $(0.04 \times \approx 4700 \text{ (Pueblo County)} \div 1000) + 1 = \underline{1.19}$ **elevation adjustment factor**

Step 2: Using the adjustment factor from above, calculate the hourly hot water usage.
 $\frac{\underline{1.19}}{\text{adjustment factor}} \times \underline{\hspace{2cm}} \text{ total water (GPH) required} = \underline{\hspace{2cm}} \text{ GPH}$
max hourly hot water usage

Step 3: Calculate the minimum BTU rating of the water heater using the calculation below

Gas Water Heater Thermal Efficiency Rating (place in box below)
 For commercial water heaters, you can find this rating on the spec sheet. If you don't know the rating, use a rating of 0.75. For all domestic water heaters, use a rating of 0.75.

$$\left(\frac{\underline{\hspace{2cm}}}{\text{max hourly hot water usage}} \times 100 \times 8.33 \right) \div \boxed{\hspace{1cm}} = \underline{\hspace{2cm}} \text{ BTU}$$

efficiency rating **minimum BTU rating**

Step 4: Proposed Gas Water Heater based on BTU

The BTU rating for the water heater in the facility must be equal to or greater than the minimum BTU rating calculated above.

Make: _____ Model: _____
 BTU Rating: _____
 Recovery Rate: _____ gallons per hour at 100°F rise at sea level

Option B: Electric Water Heater

For electric water heaters, the maximum hourly hot water usage is the same number as the total water required (GPH) by all fixtures as calculated in the Required Water Calculation Table. Use this formula to calculate the minimum Kilowatt rating of the electric water heater:

$$\left(\frac{\underline{\hspace{2cm}}}{\text{total water (gph)}} \times 100 \times 8.33 \right) \div 3412 = \underline{\hspace{2cm}} \text{ kW}$$

minimum Kilowatt rating

Proposed Electric Water Heater based on Kilowatt rating
 The Kilowatt rating for the water heater in the facility must be equal to or greater than the minimum Kilowatt rating calculated above.

Make: _____ Model: _____
 Kilowatt Rating: _____
 Recovery Rate: _____ gallons per hour at 100°F rise at sea level

Annex 2: Menu and Food Handling Procedures

- A. Submit menus, such any products that are to be infused or the concentrate that is to be sold.
- B. Submit Standard Operating Procedures
 - a. For the Extraction Process (if applicable)
 - b. For the Infusion Process (if applicable)
- C. Please submit copies of extraction/infusion employees current ServSafe (or equivalent) Certification.
- D. Please describe how the temperature of potentially hazardous foods (i.e. marijuana concentrate intended for non-smoking oral consumption) will be monitored. Detail frequency of temperature checks and what foods and/or equipment will be monitored. If logs or other types of documentation will be used to help manage proper food temperatures, please attach copies.

- E. Will cooked foods be cooled? **Yes** **No**

What methods will be used to rapidly cool foods to 41°F (5°C) or below? Check all that apply. (Reference 3-603 Cooling and 3-604 Cooling Methods in the Colorado Retail Food Establishment Rules and Regulations.)

- Under Refrigeration
- Ice Water Bath
- Adding Ice as an Ingredient
- Rapid Cooling Equipment
- Shallow Pans
- Separating food into smaller portions
- Other:

1. List the foods that will require rapid cooling. Include foods that are made from scratch such as soups, sauces, potato salad, pasta salads, chili, pasta noodles, roasts, casseroles, sausages, yogurts, etc.:

- F. Describe how frozen foods will be thawed. (Reference 3-601 Thawing in the Colorado Retail Food Establishment Rules and Regulations.)

- Under Refrigeration
- Under Cold Running Water
- In a Microwave
- As a Part of the Cooking Process
- Other:

- G. Will produce be washed? **Yes** **No** **N/A**

If Not, will produce be received pre-washed? **Yes** **No**

If pre-washed, please provide documentation.

- O. How will bare hand contact with ready-to-eat foods be minimized during preparation? (Reference 3-401 Preventing Contamination from Hands, in the Colorado Retail Food Establishment Rules and Regulations.)

- Utensils
- Gloves
- Deli Tissue
- Other:

Annex 3: Employee Hygiene Guidance and Requirements

NOTE: Facility requires a personalized sick employee plan, not a print out of the regulations or this guidance document.

The purpose of this guidance document is to encourage employee practices and behaviors that can help prevent food handlers from spreading viruses and bacterias to food that cause foodborne illness outbreaks. Below is a list of highly infective pathogens that are transmissible through food and cause severe illness:

- Norovirus
- Hepatitis A virus
- Salmonella Typhi
- Shigella spp.
- Escherichia coli (E. coli) 0157:H7 (or other Enterohemorrhagic or Shiga toxin-producing E. coli)
- Other enteric bacterial pathogen such as Salmonella or Campylobacter

If an employee has been diagnosed by a health practitioner to have any of these pathogens, prior to returning to work, they must be cleared by their health practitioner and the Health Department. In lieu of a diagnosis of any of these pathogens, employees can return to work if they have been free of the symptoms listed above for 24 hours or more.

Section 2-201 of the Colorado Retail Food Establishment Rules and Regulations states that management has the responsibility to inform and monitor conditional employees or food employees to ensure that they have good hygienic practices and know when they should not come to work because of illness.

Should employees exhibit the following symptoms, refer to section 2-202 of the Colorado Retail Food Establishment Rules and Regulations to determine when a food handler should be excluded or restricted from food handing duties:

- Vomiting
- Diarrhea
- Jaundice (yellow skin or eyes)
- Sore throat with fever
- Infected cuts and burns with pus on hands and wrists

Additional Resources

Employee Health and Personal Hygiene Handbook

<http://www.fda.gov/Food/GuidanceRegulation/RetailFoodProtection/IndustryandRegulatoryAssistancandTrainingResources/ucm113827.htm>

Communicable Disease Manual

<https://www.colorado.gov/pacific/cdphe/communicable-disease-manual>

Employee Illness Flow Chart: When to exclude and restrict employees from working.

Employee Illness: The Flowchart

Use this diagram to help you determine whether an employee should be restricted or excluded from food handling at your facility.

