

REGULATION 10

**MINIMUM GOOD MANUFACTURING PRACTICES FOR CULTIVATION AND
PREPARATION OF CANNABIS AND CANNABIS PRODUCTS FOR
ADMINISTRATION TO HUMANS**

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10.010 Establishment of minimum good manufacturing practices. NCCR 10.010 to 10.080, inclusive, set forth the minimum good manufacturing practices for the cultivation and preparation of cannabis and cannabis products for administration to humans.

10.015 Cannabis cultivation facility, cannabis production facility and cannabis sales facility: Requirement to have quality control unit.

1. Each cannabis cultivation facility, cannabis production facility and cannabis sales facility shall have a quality control unit that:
 - (a) Has the responsibility and authority to approve or reject all components, product containers, closures, in-process materials, packaging materials, labeling and cannabis or cannabis products;
 - (b) Has the authority to review production records to assure that no errors have occurred or, if errors have occurred, that the errors have been fully investigated and resolved;
 - (c) Is responsible for approving or rejecting cannabis or cannabis products manufactured, processed, packaged or held under contract by another cannabis establishment; and
 - (d) Is responsible for approving or rejecting all procedures or specifications which may impact the identity, strength, quality and purity of the cannabis or cannabis products.
2. Each cannabis cultivation facility, cannabis production facility and cannabis sales facility shall:
 - (a) Set forth the responsibilities and procedures applicable to the quality control unit in writing, a copy of which shall be provided promptly to the Board or Board Agents upon request; and
 - (b) Follow the written responsibilities and procedures set forth pursuant to paragraph (a).

10.020 Cannabis cultivation facility, cannabis production facility and cannabis sales facility: Adequate ventilation, filtration systems and related equipment required for building.

1. Each cannabis cultivation facility, cannabis production facility and cannabis sales facility shall ensure that any building used to manufacture, process, package or hold cannabis or cannabis products:
 - (a) Has adequate ventilation; and
 - (b) Contains equipment for adequate control over air pressure, microorganisms, dust, humidity and temperature when appropriate for the manufacture, processing, packaging or holding of cannabis or cannabis products.
2. Each cannabis cultivation facility, cannabis production facility and cannabis sales facility must use filtration systems, including, without limitation, prefilters and particulate matter air filters, when appropriate on air supplies to production areas. If air is recirculated to production areas, the cannabis establishment must take measures to control recirculation of dust from production. In areas where air contamination occurs during production, the cannabis establishment must ensure that there are adequate exhaust systems or other systems adequate to control contaminants.

10.025 Cannabis cultivation facility, cannabis production facility and cannabis sales facility: Establishment of and adherence to written procedures for labeling and packaging materials.

1. Each cannabis cultivation facility, cannabis production facility and cannabis sales facility shall establish and follow written procedures describing in sufficient detail the receipt, identification, storage, handling, sampling, and examination of labeling and packaging materials. A copy of these procedures shall be provided promptly to the Board or Board Agents upon request.

2. Any labeling or packaging materials that meet the appropriate written specifications established pursuant to subsection 1 may be approved and released for use. Any labeling or packaging materials that do not meet the specifications established pursuant to subsection 1 must be rejected to prevent their use in operations for which they are unsuitable.

3. Each cannabis cultivation facility, cannabis production facility and cannabis sales facility shall:

(a) Store separately with suitable identification the labels and other labeling materials for each type of cannabis or cannabis product, and the different strength, dosage form or quantity of contents;

(b) Limit access to the storage area described in paragraph (a) to authorized personnel of the cannabis establishment; and

(c) Destroy obsolete and outdated labels, labeling and other packaging materials.

10.030 Cannabis cultivation facility, cannabis production facility and cannabis sales facility: Establishment of and adherence to written procedures for production and process control to assure quality of cannabis and cannabis products; review and approval of procedures; recording and justification of deviation from procedures.

1. Each cannabis cultivation facility, cannabis production facility and cannabis sales facility shall have written procedures for production and process control that are designed to assure that the cannabis or cannabis products have the identity, strength, quality and purity they purport or are represented to possess. A copy of these procedures shall be provided promptly to the Board or Board Agents upon request.

2. The written procedures required pursuant to subsection 1 and any changes to those procedures must be drafted, reviewed and approved by the appropriate organizational units of the cannabis establishment and reviewed and approved by the quality control unit of the cannabis establishment.

3. Each cannabis cultivation facility, cannabis production facility and cannabis sales facility shall follow written production and process control procedures in executing various production and process control functions and shall document these procedures at the time of performance. Any deviation from the written procedures must be recorded and justified by the cannabis establishment. A copy of these procedures shall be provided promptly to the Board or Board Agents upon request.

10.035 Cannabis cultivation facility, cannabis production facility and cannabis sales facility: Establishment of and adherence to written procedures for components, product containers and closures. Each cannabis cultivation facility, cannabis production facility and cannabis sales facility shall ensure that:

1. It has written procedures describing in sufficient detail the receipt, identification, storage, handling, sampling, testing and approval or rejection of components, product containers and closures and that it follows those procedures. A copy of these procedures shall be provided promptly to the Board or Board Agents upon request;

2. Components, product containers and closures are at all times handled and stored in a manner so as to prevent contamination; and

3. Bagged or boxed components, product containers or closures are stored at least 6 inches (15 centimeters) off the floor and are suitably spaced to permit cleaning and inspection.

10.040 Cannabis cultivation facility, cannabis production facility and cannabis sales facility: Appropriateness, cleanliness and maintenance of equipment, utensils and substances; maintenance of records.

1. Each cannabis cultivation facility, cannabis production facility and cannabis sales facility shall ensure that any equipment used to manufacture, process, package or hold cannabis or cannabis products:
 - (a) Is of appropriate design and adequate size and is suitably located to facilitate operations for its intended use and for its cleaning and maintenance; and
 - (b) Is constructed so that surfaces which have direct contact with components, in-process materials, cannabis or cannabis products are not reactive, additive or absorptive so as to alter the safety, identity, strength, quality or purity of the cannabis or cannabis products beyond the official or other established requirements.
 - (c) Is submitted to the appropriate Board Agent on a form prescribed by the Board for approval prior to use.
2. Each cannabis cultivation facility, cannabis production facility and cannabis sales facility shall ensure that:
 - (a) Any substances required for its operation, such as lubricants or coolants, do not come into contact with components, product containers, in-process materials, cannabis or cannabis products so as to alter the safety, identity, strength, quality or purity of the cannabis or cannabis products beyond the official or other established requirements;
 - (b) Equipment and utensils are cleaned, maintained and, as appropriate for the nature of the cannabis or cannabis products, sanitized and sterilized at appropriate intervals to prevent malfunctions or contamination that would alter the safety, identity, strength, quality or purity of the cannabis or cannabis products beyond the official or other established requirements; and
 - (c) Written procedures are established and followed for the cleaning and maintenance of equipment and utensils used to manufacture, process, package or hold cannabis or cannabis products. A copy of these procedures shall be provided promptly to the Board or Board Agents upon request. These procedures must include, without limitation:
 - (1) Assignment of responsibility for cleaning and maintaining equipment;
 - (2) Maintenance and cleaning schedules, including, sanitizing schedules;
 - (3) A description in sufficient detail of the methods, equipment and materials used in cleaning and maintenance operations and the methods of disassembling and reassembling equipment as necessary to assure proper cleaning and maintenance;
 - (4) Protection of clean equipment from contamination before use; and
 - (5) Inspection of equipment for cleanliness immediately before use.
3. Each cannabis cultivation facility, cannabis production facility and cannabis sales facility must maintain records of any maintenance, cleaning, sanitizing and inspection carried out pursuant to this section.

10.045 Cannabis cultivation facility, cannabis production facility, cannabis distributor and cannabis sales facility: Requirement to ensure cleanliness of employees and volunteers. Each cannabis cultivation facility, cannabis production facility, cannabis distributor and cannabis sales facility shall ensure that:

1. Each cannabis establishment agent who is employed by or volunteers at the cannabis establishment and who is engaged in cultivating, manufacturing, processing, packaging or holding cannabis or cannabis products wears clean clothing appropriate for the duties he or she performs;

2. Protective apparel, such as head, face, hand and arm coverings, are worn as necessary to protect cannabis or cannabis products from contamination; and
3. Each cannabis establishment agent who is employed by or volunteers at the cannabis establishment practices good sanitation and health habits.

10.050 Cannabis cultivation facility, cannabis production facility, cannabis distributor and cannabis sales facility: Restrictions on salvaging cannabis and cannabis products; maintenance of records.

1. Each cannabis cultivation facility, cannabis production facility, cannabis distributor and cannabis sales facility shall ensure that cannabis or cannabis products that have been subjected to improper storage conditions, including, without limitation, extremes in temperature, humidity, smoke, fumes, pressure, age or radiation due to natural disasters, fires, accidents or equipment failures, are not salvaged and returned to the marketplace.
2. Whenever it is unclear whether cannabis or cannabis products have been subjected to the conditions described in subsection 1, a cannabis cultivation facility, cannabis production facility or cannabis sales facility may conduct salvaging operations only if:
 - (a) The cannabis or cannabis products are salvaged for use only for the purpose of extraction;
 - (b) Evidence from tests and assays performed by a cannabis testing facility indicates that the cannabis or cannabis products meet all applicable standards of quality and purity; and
 - (c) Evidence from inspection of the premises indicates that the cannabis or cannabis products and their associated packaging were not subjected to improper storage conditions as a result of the disaster or accident, if any.
3. A cannabis cultivation facility, cannabis production facility and cannabis sales facility must maintain records, including, without limitation, the name, lot number, production run number and disposition for cannabis or cannabis products salvaged pursuant to subsection 2.

10.055 Cannabis establishment: Requirements for building used to manufacture, process, package or hold cannabis.

1. Each cannabis establishment shall ensure that any building used to manufacture, process, package or hold cannabis or cannabis products:
 - (a) Is of suitable size, construction and location to facilitate cleaning, maintenance and proper operations;
 - (b) Has adequate space for the orderly placement of equipment and materials to prevent miscalculation or misuse of any component in any step of the manufacture, control, packaging, labeling or distribution of cannabis or cannabis products between different components, product containers, closures, labels, in-process materials and cannabis or cannabis products and to prevent contamination; and
 - (c) Contains interior surfaces which are not constructed of bare, painted or coated wood or wood product unless:
 - (1) The bare, painted or coated wood is within a building used only as a cannabis sales facility and all cannabis or cannabis products are packaged or protected at all times; or

- (2) The wood is sealed and coated with an epoxy paint which renders the surface:
- (I) Safe;
 - (II) Durable, corrosion-resistant, nonporous and nonabsorbent;
 - (III) Finished to have a smooth, easily cleanable surface; and
 - (IV) Resistant to pitting, chipping, crazing, scratching, scoring, distortion and decomposition.

2. Each cannabis establishment shall ensure that:

- (a) The flow of components, product containers, closures, labels, in-process materials and cannabis and cannabis products through any building used to manufacture, process, package or hold cannabis or cannabis products is designed to prevent contamination;
- (b) The operations of the cannabis establishment are performed within specifically defined areas of adequate size;
- (c) All items are stored at least 6 inches (15 cm) off the floor;
- (d) All access points to outside areas are sealed, including, without limitation, by use of door sweeps; and
- (e) There are separate or defined areas or such other control systems for the operations of the cannabis establishment as are necessary to prevent contamination or miscalculation or misuse of any component in any step of the manufacture, control, packaging, labeling or distribution of cannabis or cannabis products during the course of the following procedures:
 - (1) Receipt, identification, storage and withholding from use of components, product containers, closures and labels, pending the appropriate sampling, testing or examination by the quality control unit before release for manufacturing, processing or packaging;
 - (2) Holding rejected components, product containers, closures and labels before disposition;
 - (3) Storage of released components, product containers, closures and labels;
 - (4) Storage of in-process materials;
 - (5) Processing operations;
 - (6) Packaging and labeling operations;
 - (7) Quarantine storage before the release of cannabis or cannabis products;
 - (8) Storage of cannabis or cannabis products after release;
 - (9) Cannabis testing facility operations; and
 - (10) Sanitary processing, which includes as appropriate:
 - (I) Floors, walls and ceilings made of smooth, hard surfaces that are easily cleanable;
 - (II) Temperature and humidity controls;
 - (III) An air supply filtered through high-efficiency particulate air filters under positive pressure;
 - (IV) A system for monitoring environmental conditions;
 - (V) A system for cleaning and sanitizing rooms and equipment; and
 - (VI) A system for maintaining any equipment used to control sanitary conditions.

10.060 Cannabis establishment: Requirement to maintain building used to manufacture, process, package or hold cannabis in good state of repair. Each cannabis establishment shall ensure that any building used to manufacture, process, package or hold cannabis or cannabis products is maintained in a good state of repair.

10.065 Cannabis establishment: Requirements for water, plumbing and drains in building used to manufacture, process, package or hold cannabis. Each cannabis establishment shall ensure that:

1. Any building used to manufacture, process, package or hold cannabis or cannabis products supplies potable water under continuous positive pressure in a plumbing system free of defects that could contribute to the contamination of any cannabis or cannabis products. Potable water must meet the standards prescribed in the Primary Drinking Water Regulations, 40 C.F.R. Part 141. Water not meeting such standards is not permitted in the potable water system.
2. Drains are of adequate size and, where connected directly to a sewer, are provided with an air break or other mechanical device to prevent back-siphonage.

10.070 Cannabis establishment: Adequate lighting.

1. Each cannabis establishment shall ensure that adequate lighting is provided in all areas of the cannabis establishment.
2. If it is necessary for a cannabis establishment to have dim or no lighting in a certain area of the cannabis establishment for a specific reason, the cannabis establishment must have a written policy which specifies:
 - (a) The area needing dim or no lighting; and
 - (b) The reason the area needs dim or no lighting.

10.075 Cannabis establishment: Establishment of and adherence to written procedures for sanitation; requirement to retain person who is certified applicator of pesticides.

1. Each cannabis establishment shall ensure that it has written procedures:
 - (a) Assigning responsibility for sanitation and describing in sufficient detail the cleaning schedules, methods, equipment and materials to be used in cleaning the buildings and facilities of the cannabis establishment; and
 - (b) For the use of appropriate rodenticides, insecticides, fungicides, fumigating agents and cleaning and sanitizing agents by the cannabis establishment.
2. Each cannabis establishment shall ensure that the written procedures described in subsection 1 are followed. A copy of these procedures shall be provided promptly to the Board or Board Agents upon request.
3. All sanitation procedures of a cannabis establishment apply to work performed by contractors or temporary cannabis establishment agents for the cannabis establishment as well as work performed by full-time cannabis establishment agents during the ordinary course of operations.
4. Each cannabis cultivation facility shall retain at least one person who is a certified applicator, as defined in NRS 555.2618, who is authorized to use pesticides for:
 - (a) If the cannabis cultivation facility engages in the cultivation of cannabis indoors, greenhouse and nursery pest control pursuant to subparagraph (2) of paragraph (c) of subsection 1 of NAC 555.640; and

(b) If the cannabis cultivation facility engages in the cultivation of cannabis outdoors, agricultural pest control of animals or plants pursuant to paragraph (a) or (b) of subsection 1 of NAC 555.640.

10.080 Cannabis establishment: Storage, management and disposal of waste.

1. Except as otherwise provided in subsection 2, a cannabis establishment shall:
 - (a) Store, manage and dispose of all solid and liquid waste and wastewater generated during the processing of cannabis or production of cannabis products in accordance with all applicable state and local laws and regulations; and
 - (b) Render waste containing cannabis unusable before the waste leaves the cannabis establishment. Such waste includes, without limitation:
 - (1) Waste from cannabis plants, including, without limitation, roots, stalks, leaves, stems, flower, trim or solid plant material and any plant material used to create an extract;
 - (2) Solvents used in the processing of cannabis or extraction of concentrated cannabis;
 - (3) Any plant material or solvents discarded as a result of quality assurance testing or any other testing performed by a cannabis testing facility; and
 - (4) Any other waste as determined by the Board.
 2. A cannabis distributor or cannabis sales facility may return a cannabis product to a cannabis cultivation facility or cannabis production facility to be rendered unusable.
 3. Unless another method approved by the Board is used, waste containing cannabis must be rendered unusable by grinding and incorporating the waste with:
 - (a) For disposal using an organic method other than composting, the following kinds of compostable mixed waste:
 - (1) Food waste;
 - (2) Yard waste;
 - (3) Soil; or
 - (4) Other waste as approved by the Board; or
 - (b) For disposal in a landfill or other method not described in paragraph (a), the following kinds of non-compostable mixed waste:
 - (1) Paper waste;
 - (2) Cardboard waste;
 - (3) Plastic waste; or
 - (4) Other waste as approved by the Board.
- The amount of waste containing cannabis in the resulting mixture must be less than 50 percent by volume. Such waste must not be disposed of by composting.
4. A cannabis establishment shall provide notice to the Board using the seed-to-sale tracking system before rendering unusable and disposing of cannabis or cannabis products.