

## CHAPTER 453D – ADULT USE OF MARIJUANA

### Standards for Cultivation and Preparation of Marijuana and Marijuana Products

**Sec. ( ) Minimum good manufacturing practices.** (NRS 453D.( )) NAC 453D.( ) to 453D.( ), inclusive, set forth the minimum good manufacturing practices for the cultivation and preparation of marijuana and marijuana products for administration to humans.

**Sec. ( ) Quality control unit.** (NRS 453D.( ))

1. *Each marijuana cultivation facility, marijuana product manufacturing facility and retail marijuana store 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 marijuana or marijuana products;*

*(b) Has the authority to review production records to assure that no errors have occurred or, if errors have occurred, that they have been fully investigated and resolved;*

*(c) Is responsible for approving or rejecting marijuana or marijuana products manufactured, processed, packaged or held under contract by another marijuana establishment; and*

*(d) Is responsible for approving or rejecting all procedures or specifications which may impact the identity, strength, quality and purity of the marijuana or marijuana products.*

2. *Each marijuana cultivation facility, marijuana product manufacturing facility and retail marijuana store shall:*

*(a) Set forth the responsibilities and procedures applicable to the quality control unit in writing; and*

*(b) Follow the written responsibilities and procedures set forth pursuant to paragraph (a).*

**Sec. ( ) Hygiene standards for establishment agents at certain marijuana establishments. (NRS 453D.( ))**

*Each marijuana cultivation facility, marijuana product manufacturing facility and retail marijuana store shall ensure that:*

- 1. Each marijuana establishment agent who is employed by or volunteers at the marijuana establishment and who is engaged in cultivating, manufacturing, processing, packaging or holding marijuana or marijuana 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 marijuana or marijuana products from contamination; and*
- 3. Each marijuana establishment agent who is employed by or volunteers at the marijuana establishment practices good sanitation and health habits.*

**Sec. ( ) Physical facilities: Generally. (NRS 453D.( ))**

- 1. Each marijuana establishment shall ensure that any building used to manufacture, process, package, support or hold marijuana or marijuana 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 marijuana or marijuana products between different components, product containers, closures, labels, in-process materials and marijuana or marijuana 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 retail marijuana store and all marijuana or marijuana 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 marijuana establishment shall ensure that:*

*(a) The flow of components, product containers, closures, labels, in-process materials and marijuana and marijuana products through any building used to manufacture, process, package or hold marijuana or marijuana products is designed to prevent contamination;*

*(b) The operations of the marijuana establishment are performed within specifically defined areas of adequate size;*

*(c) All items are stored at least 6" off the floor;*

*(d) All access points to outside areas are sealed, such as door sweeps; and*

(e) *There are separate or defined areas or such other control systems for the operations of the marijuana 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 marijuana or marijuana 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 marijuana or marijuana products;*

(8) *Storage of marijuana or marijuana products after release;*

(9) *Control and laboratory 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.*

**Sec. ( ) Physical facilities: Lighting requirements for certain establishments. (NRS 453D.( ))**

1. *Each marijuana testing facility, marijuana cultivation facility and retail marijuana store shall ensure that adequate lighting is provided in all areas of the marijuana establishment.*
2. *If it is necessary for marijuana testing facility, marijuana cultivation facility or retail marijuana store to have dim or no lighting in a certain area of the marijuana establishment for a specific reason, the marijuana 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.*

**Sec. ( ) Physical facilities: Ventilation and filtration requirements for certain marijuana establishments. (NRS 453D.( ))**

1. *Each marijuana cultivation facility, marijuana product manufacturing facility and retail marijuana store shall ensure that any building used to manufacture, process, package or hold marijuana or marijuana 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 marijuana or marijuana products.*

2. *Each marijuana cultivation facility, marijuana product manufacturing facility and retail marijuana store 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 marijuana establishment must take measures to control recirculation of dust from production. In areas where air contamination occurs during production, the marijuana establishment must ensure that there are adequate exhaust systems or other systems adequate to control contaminants.*

**Sec. ( ) Potable water; drains. (NRS 453D.( ))** *Each marijuana establishment shall ensure that:*

1. *Any building used to manufacture, process, package or hold marijuana or marijuana products supplies potable water under continuous positive pressure in a plumbing system free of defects that could contribute to the contamination of any marijuana or marijuana 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.*

**Sec. ( ) Written procedures for sanitation and control of vermin. (NRS 453D.( ))**

1. *Each marijuana 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 marijuana establishment; and*
- (b) *For the use of appropriate rodenticides, insecticides, fungicides, fumigating agents and cleaning and sanitizing agents by the marijuana establishment.*
2. *Each marijuana establishment shall ensure that the written procedures described in subsection 1 are followed.*
  3. *All sanitation procedures of a marijuana establishment apply to work performed by contractors or temporary marijuana establishment agents for the marijuana establishment as well as work performed by full-time marijuana establishment agents during the ordinary course of operations.*
  4. *Each marijuana cultivation facility shall maintain at least one Certified Pesticide Applicator at each facility, certified by the Nevada Department of Agriculture pesticide program, in the Greenhouse Category for indoor/outdoor greenhouse marijuana cultivations and/or Agricultural Plant and/or Agricultural Animal Categories for outdoor marijuana cultivation.*

**Sec. ( ) Maintenance of buildings in good state of repair. (NRS 453D.( ))**

*Each marijuana cultivation facility, marijuana product manufacturing facility and retail marijuana store shall ensure that any building used to manufacture, process, package or hold marijuana or marijuana products is maintained in a good state of repair.*

**Sec. ( ) Equipment and utensils: Requirements for maintenance, cleaning, sanitizing and inspection for certain marijuana establishments. (NRS 453D.( ))**

1. *Each marijuana cultivation facility, marijuana product manufacturing facility and retail marijuana store shall ensure that any equipment used to manufacture, process, package or hold marijuana or marijuana 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, marijuana or marijuana products are not reactive, additive or absorptive so as to alter the safety, identity, strength, quality or purity of the marijuana or marijuana products beyond the official or other established requirements.*

2. *Each marijuana cultivation facility, marijuana product manufacturing facility and retail marijuana store 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, marijuana or marijuana products so as to alter the safety, identity, strength, quality or purity of the marijuana or marijuana products beyond the official or other established requirements;*

*(b) Equipment and utensils are cleaned, maintained and, as appropriate for the nature of the marijuana or marijuana products, sanitized and sterilized at appropriate intervals to prevent malfunctions or contamination that would alter the safety, identity, strength, quality or purity of the marijuana or marijuana 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 marijuana or marijuana products. These procedures must include, without limitation:*

*(1) Assignment of responsibility for cleaning and maintaining equipment;*

*(2) Maintenance and cleaning schedules, including, where appropriate, 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 marijuana cultivation facility, marijuana product manufacturing facility and retail marijuana store must maintain records of any maintenance, cleaning, sanitizing and inspection carried out pursuant to this section.*

**Sec. ( ) Requirements for components, product containers and closures for certain-marijuana establishments. NRS 453D.( )**

*Each marijuana cultivation facility, marijuana product manufacturing facility and retail marijuana store 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;*

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 off the floor and are suitably spaced to permit cleaning and inspection.*

**Sec. ( ) Written procedures for production and process control required for certain marijuana establishments. (NRS 453D.( ))**

1. *Each marijuana cultivation facility, marijuana product manufacturing facility and retail marijuana stores shall have written procedures for production and process control that are designed to assure that the marijuana or marijuana products have the identity, strength, quality and purity they purport or are represented to possess.*
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 marijuana establishment and reviewed and approved by the quality control unit of the marijuana establishment.*
3. *Each marijuana cultivation facility, marijuana product manufacturing facility and retail marijuana store 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 marijuana establishment.*

**Sec. ( ) Requirements relating to labeling and packaging materials for certain marijuana establishments. (NRS 453D.( ))**

1. *Each marijuana cultivation facility, marijuana product manufacturing facility and retail marijuana store shall establish and follow written procedures describing in sufficient*

*detail the receipt, identification, storage, handling, sampling, examination and testing of labeling and packaging materials.*

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 marijuana cultivation facility, marijuana product manufacturing facility and retail marijuana store shall:*

*(a) Store separately with suitable identification the labels and other labeling materials for each type of marijuana or marijuana 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 marijuana establishment; and*

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

**Sec. ( ) Prohibition on salvage of marijuana and marijuana products subjected to certain conditions by certain marijuana establishments; salvage allowed with certain evidence; records. (NRS 453D.( ))**

1. *Each marijuana cultivation facility, marijuana product manufacturing facility and retail marijuana store shall ensure that marijuana or marijuana 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 marijuana or marijuana products have been subjected to the conditions described in subsection 1, a marijuana cultivation facility, marijuana product manufacturing facility or retail marijuana store may conduct salvaging operations only if there is:*
  - (a) *The product is sent to production for extraction;*
  - (b) *Evidence from laboratory tests and assays that the marijuana or marijuana products meet all applicable standards of identity, strength, quality and purity; and*
  - (c) *Evidence from inspection of the premises that the marijuana or marijuana products and their associated packaging were not subjected to improper storage conditions as a result of the disaster or accident, if any.*
3. *A marijuana cultivation facility, marijuana product manufacturing facility and retail marijuana store must maintain records, including, without limitation, the name, lot number, production run number and disposition for marijuana or marijuana products salvaged pursuant to subsection 2.*

**Sec. ( ) Disposal of Marijuana Products and Waste (NRS 453D.( ))**

*The procedures for marijuana to be made unusable includes the following:*

1. *The allowable method to render marijuana plant waste unusable is by grinding and incorporating the marijuana plant waste with other ground materials so the resulting mixture is at least fifty percent non-marijuana waste by volume. Other methods to render marijuana waste unusable must be approved by the Department before implementation.*
2. *Material used to grind with the marijuana falls into two categories: Compostable waste and non-compostable waste:*

- (a) *Compostable mixed waste: Marijuana waste to be disposed as compost or in another organic waste method (for example, anaerobic digester) may be mixed with the following types of waste materials:*
    - (1) *Food waste*
    - (2) *Yard waste*
    - (3) *Other waste as approved by the Department*
  - (b) *Non-compostable mixed waste: Marijuana waste to be disposed in a landfill or another disposal method (for example, incinerator) may be mixed with the following types of waste materials:*
    - (1) *Paper waste*
    - (2) *Cardboard waste*
    - (3) *Plastic waste*
    - (4) *Soil, or*
    - (5) *Other waste as approved by the Department*
3. *Solid and liquid wastes and wastewater generated during marijuana production and processing must be stored, managed, and disposed of in accordance with applicable state and local laws and regulations.*
4. *Waste that must be disposed of includes, but are not limited to, the following:*
- (a) *Waste from marijuana flowers, trim and solid plant material used to create an extract;*
  - (b) *Waste solvents used in the marijuana process;*
  - (c) *Discarded plant waste, spent solvents and laboratory waste from any marijuana processing or quality assurance testing;*

- (d) Marijuana extract that fails to meet quality testing.*
5. *A marijuana plant, usable marijuana, trim and other plant material in itself is not considered dangerous waste unless it has been treated or contaminated with a solvent.*
  6. *Marijuana waste must be rendered unusable prior to leaving a licensed production, cultivation, distribution, retail store or laboratory.*
  7. *Waste that must be rendered unusable prior to disposal include, but are not limited to, the following:*
    - (a) Marijuana plant waste, including roots, stalks, leaves, and stems that have not been processed with solvent;*
    - (b) Solid marijuana sample plant waste possessed by third-party laboratories accredited by the Department to test for quality assurance that must be disposed of;*
    - (c) Other waste as determined by the Department.*
  8. *Establishments must provide the Department a minimum of twenty-four hour notice in the traceability system prior to rendering the product unusable and disposing of it.*