

**GENERAL GOVERNMENT**  
**Department of Agriculture**  
**Office of Agricultural Marketing**  
**(as filed February 13, 2020)**

**302 KAR 50:055. Sampling and THC Testing; Post-Testing Actions; Disposal of Noncompliant Harvests**

**Section 1. Definitions.**

- (1) "Acceptable Hemp THC Level" means the application of the Measurement of Uncertainty to the reported (decarboxylated) delta-9-THC concentration level on a dry weight basis to the 0.300% limit set forth in federal law and state law. For 2020, the Acceptable Hemp THC Level shall be 0.3999%.
- (2) "Cannabis" means the plant that, depending on its THC concentration level, is defined as either "hemp" or "marijuana." Cannabis is a genus of flowering plants in the family Cannabaceae of which Cannabis sativa is a species, and Cannabis indica and Cannabis ruderalis are subspecies thereof. Cannabis includes all parts of the plant, whether growing or not, including its seeds, resin, compounds, salts, derivatives, and extracts; and does not include a "publicly marketable hemp product," as defined by this administrative regulation.
- (3) "CBD" means cannabidiol.
- (4) "Decarboxylated" means the completion of the chemical reaction that converts THC-acid into delta-9-THC, the intoxicating component of cannabis. The decarboxylated value is also calculated using a conversion formula that sums delta-9-THC and eighty-seven and seven tenths (87.7) percent of THC-acid.
- (5) "delta-9-THC" means delta-9-tetrahydrocannabinol concentration (the primary intoxicating component of cannabis). For compliance purposes, all delta-9-THC concentrations must be measured post- decarboxylation or by another method which shall include both delta-9-THC and delta-9-THCA also known as total THC).
- (6) "Department" or "KDA" is defined by KRS 260.850(3).
- (7) "Hemp" or "industrial hemp" is defined by KRS 260.850(5).
- (8) "Inspector" means an employee or other representative of the department sent to collect samples and perform inspections.
- (9) "Lot" means a contiguous area in a field, greenhouse, or indoor growing structure containing the same variety or strain of hemp throughout.
- (10) "Measurement of Uncertainty" means the parameter, associated with the result of a measurement that characterizes the dispersion of the values that could reasonably be attributed to the particular quantity subject to the measurement. For samples collected in 2020, the Measurement of Uncertainty shall be 0.0999%.
- (11) "Person" means an individual or business entity.
- (12) "Post-harvest sample" means a sample taken from the harvested hemp from a particular lot's harvest in accordance with the procedures as established in 302 KAR 50:055. The entire lot's harvest is in the same form (for example, intact-plant, flowers, ground materials, etc.), homogenous, and not mixed with non-hemp materials or hemp from

another lot.

(13) "Pre-harvest sample" means a composite, representative portion from living plants in a hemp lot collected in accordance with the procedures as established in 302 KAR 50:055.

(14) "Program" means the department's Hemp Licensing Program.

(15) "Propagule" means a plant or plant part that can be utilized to grow a new plant.

(16) "UK DRS" means the Division of Regulatory Services at the University of Kentucky College of Agriculture, Food, and Environment.

## **Section 2. Procedures for inspection and sample-collection visits.**

(1) No hemp plant shall be harvested from any lot before a department inspector completes an inspection and sample-collection visit.

(2) The licensed grower shall submit to the department a completed Harvest/Destruction Report form at least 15 days prior to the grower's expected harvest date.

(3) Upon receiving a completed Harvest/Destruction Report form, the department shall contact the licensed grower to schedule an inspection and sample-collection visit for a specific time on a date that is not later than the grower's expected harvest date.

(4) The licensed grower, or the grower's authorized representative, shall be present during the inspection and sample-collection visit.

(5) During the inspection and sample-collection visit, the licensed grower shall provide to the inspector complete and unrestricted access to all hemp and other cannabis plants, whether growing or harvested; all land, buildings, and other structures used for the cultivation and storage of hemp and other cannabis plants; and all locations listed in the Hemp Grower License.

(6) During the inspection and sample-collection visit, the inspector shall perform a visual inspection of each location listed in the Hemp Grower License in order to verify the GPS coordinates and look for evidence that hemp plants or other cannabis plants were harvested without authorization prior to the inspector's inspection and sample-collection visit.

(7) The licensed grower shall complete the harvest of the crop from a lot not more than 15 days following the date of the inspection and sample-collection visit, unless specifically authorized in writing by the department; provided, however, that such authorization shall not exceed an additional 5 days and shall not be granted by the department without its determination that the cause for delay was inclement weather or another circumstance beyond the licensed grower's control.

(8) If the licensed grower fails to complete the harvest of the crop from a lot within fifteen (15) days following the date of sample collection, then the licensed grower shall submit a new Harvest/Destruction Report and may be required to pay a secondary pre-harvest sample fee established in 302 KAR 50:060.

(9) Floral material shall not be moved outside the Commonwealth, nor moved beyond a processor, nor commingled, nor extracted, nor converted into a consumer-ready product, nor enter commerce, until the department releases the material in writing.

## **Section 3. Procedure for collecting samples.**

(1) The inspector shall use the following equipment and supplies:

- (a) an "Inspection and Sample Collection" Form;
- (b) alcohol wipes;

- (c) pruning shears;
  - (d) paper sample-collection bags;
  - (e) a permanent marker;
  - (f) security tape or a stapler;
  - (g) a bucket;
  - (h) a GPS unit, or a device with GPS-capable technology; and
  - (i) nitrile disposable gloves.
- (2) The inspector shall take cuttings from at least 5 plants in each lot to be sampled.
  - (3) The inspector shall select the individual plants to be sampled from each lot by selecting at random at least five plants that appear to be representative of the composition of the lot, and avoiding selecting plants that are close to the perimeter of the lot.
  - (4) From each individual plant selected for sampling, the inspector shall cut the highest 20 centimeters from the plant's primary stem of female flower. The inspector shall not remove seed, stem, or other material from the sample that is cut from the plant.
  - (5) The inspector shall place the cuttings from the lot into a paper sample-collection bag, shut the bag by folding over its top, and secure the fold with security tape or a stapler.
  - (6) Using a permanent marker, the inspector shall write on the sealed paper sample-collection bag the Sample ID consistent with the following format:
    - (a) the last four digits of the Grower License number,
    - (b) the date, in MMDDYY format; and
    - (c) a two-digit sample number assigned by the inspector.
    - (d) Example: For Grower License 21\_1234, with a sample collected on October 15, 2020, from the third lot sampled by the inspector on that date, the Sample ID is 1234-101520-03.
  - (7) The inspector shall complete the "Inspection and Sample Collection Form" by entering the following information:
    - (a) the licensed grower's name and contact information;
    - (b) the address where the lot is located;
    - (c) the Grower License number;
    - (d) the inspector's name;
    - (e) the date of the inspection and sample collection visit; and
    - (f) for each sample collected, the Location ID, the Sample ID, the hemp variety or strain name, and a description of the crop.
  - (8) Following the completion of the inspection and sample-collection visit, the inspector shall deliver the sealed sample-collection bag to the department's designated drying facility.
  - (9) The department shall not unseal sample-collection bags during the drying process.

#### **Section 4. Procedure for THC testing.**

- (1) THC testing shall be completed by the department's designated THC testing lab; the department's primary designated THC testing lab is UK DRS, as mandated in KRS 250.355. The department shall not use THC testing services of any lab without a DEA registration.
- (2) Upon receipt of a sealed sample-collection bag from the department, UK DRS shall receive, prepare, and release hemp samples in accordance with the UK DRS SOP# HM-LB-001 (Procedures for Receiving, Preparing and Releasing Hemp Samples).
- (3) Hemp material not used by UK DRS for delta-9-THC testing shall be stored as a retained

sample.

(4) UK DRS shall measure delta-9-THC content, including both delta-9-THC and delta-9-THCA, on a dry weight basis in accordance with the UK DRS SOP# HMP-LB-002 (Procedures for Measuring Delta 9 THC Content in Industrial Hemp by Gas Chromatography with Flame Ionization Detection).

(5) The following material is incorporated by reference:

(a) UK DRS SOP# HMP-LB-002 (Procedures for Measuring Delta 9 THC Content in Industrial Hemp by Gas Chromatography with Flame Ionization Detection); and

(b) UK DRS SOP# HM-LB-001 (Procedures for Receiving, Preparing and Releasing Hemp Samples).

(6) No person shall be permitted to add to, amend, or in any way alter the composition of the retained sample.

### **Section 5. Post-testing actions.**

(1) Not later than 60 days after the date of the inspection and sample-collection visit, the department shall notify the licensed grower of the results of the THC test results and the grower's eligibility to move the harvested materials into commerce.

(2) For the purpose of determining whether a test result is compliant with the definition of hemp (0.3000% delta-9 THC on a dry-weight basis) set forth in federal law and state law, the department shall evaluate it against the Acceptable Hemp THC Level that is applicable for the current year.

(3) A sample from a lot with a measured THC concentration not exceeding the Acceptable Hemp THC Level shall be deemed compliant (i.e., conforming to the legal definition of hemp).

(4) A sample from a lot with a measured THC concentration exceeding the Acceptable Hemp THC Level shall be deemed non-compliant.

(5) Within 7 days of receiving notice of a measured THC concentration that exceeds the Acceptable Hemp THC Level but is less than 1.000%, the Licensed Grower must consent to the destruction of all material and floral material, or he or she may request a post-harvest re-test in accordance with the procedures set forth in Section 6 of this administrative regulation.

(6) The retest fee shall in an amount established in 302 KAR 50:060.

(7) Samples with a measured THC concentration of 1.000% or greater shall not be eligible for a post-harvest retest.

### **Section 6. Procedure for collecting samples for post-harvest retests.**

(1) The inspector shall use the following equipment and supplies:

- (a) an "Inspection and Sample Collection" Form;
- (b) alcohol wipes;
- (c) pruning shears;
- (d) paper sample-collection bags for wet samples;
- (e) plastic sample-collection bags for dry samples;
- (f) a permanent marker;
- (g) security tape or a stapler;
- (h) a bucket;

- (i) a GPS unit, or a device with GPS-capable technology; and
  - (j) nitrile disposable gloves.
- (2) The material selected for Post-Harvest Sampling from this lot will be determined by the inspector, not the grower.
- (3) The inspector shall perform a visual inspection to verify that the harvested material is in a homogenous state (for example, in an intact-plant state or in a ground-up state, or in another state). If the harvested material is not in a homogenous state, then the inspector shall notify the Hemp Program Manager and convey any instructions the Hemp Program Manager may designate to undertake additional post-harvest processing activities to bring the entire harvest into a homogenous state. If the license holder refuses or fails to undertake such designated activities, he or she shall be deemed to have waived any right to request a post-harvest retest and the material shall be designated for disposal.
- (4) Floral harvested material selected for Post-Harvest Sampling shall be taken in the state (for example, in an intact-plant state or in a ground-up state, or in another state) in which the license holder plans to sell or send the material to a processor, in accordance with the following instructions.
- (a) For intact-plant post-harvest samples:
    - (i) Ensure that the entire harvest is accounted for and in the same form (i.e., intact plants).
    - (ii) Clip the top 20 cm of hemp plant, primary stem, including female floral material, without removing seed, stem, or other material.
    - (iii) Take cuttings from at least five (5) hemp plants within the harvest's storage/drying area at the discretion of the inspector.
    - (iv) Place the complete sample in a paper bag.
    - (v) Seal the paper bag by folding over top once and stapling to keep closed.
  - (b) For ground plant or ground floral material Post-Harvest Samples:
    - (i) Ensure that the entire harvest is accounted for and in the same form (i.e., all harvested material whether whole plant or floral material only must be ground with no intact plants or whole flowers remaining from that harvest).
    - (ii) Sample material from bag or container without removing seed, stem, or other material.
    - (iii) Sample from a minimum of five locations within the containers from at least one cup of material from the lot.
    - (iv) Place the complete sample in a plastic sample container.
    - (v) Seal the plastic sample container.
  - (c) For Post-Harvest Samples in other forms (e.g., trimmed floral material, or floral material and stems):
    - i) Ensure that the entire harvest is accounted for and in the same form (i.e., all harvested material whether whole plant or floral material only must be ground with no intact plants or whole flowers remaining from that harvest).
    - (ii) Sample material from bag or container without removing seed, stem, or other material.

- (iii) Sample from a minimum of five locations within the containers from at least one cup of material from the lot.
  - (iv) Place the complete sample in a plastic sample container.
  - (v) Seal the plastic sample container.
- (5) The inspector shall place the cuttings or composite sample from the lot into a sample-collection bag, and secure the bag with security tape or staples.
- (6) Using a permanent marker, the inspector shall write on the sealed sample-collection bag the Sample ID consistent with the following format:
- (a) the last four digits of the Grower License number,
  - (b) the date, in MMDDYY format; and
  - (c) a two-digit sample number assigned by the inspector.
  - (d) Example: For Grower License 21\_1234, with a sample collected on October 15, 2020, from the third lot sampled by the inspector on that date, the Sample ID would be 1234-101520-03.
- (7) The inspector shall complete the “Inspection and Sample Collection Form” by entering the following information:
- (a) the licensed grower’s name and contact information;
  - (b) the address where the lot was grown and where it is currently located;
  - (c) the Grower License number;
  - (d) the inspector’s name;
  - (e) the date of the inspection and sample collection visit; and
  - (f) for each sample collected, the Location ID, the Sample ID, the hemp variety or strain name, and a description of the crop.
- (8) Following the completion of the inspection and sample-collection visit, the inspector shall deliver the sealed sample-collection bag to the department’s designated drying facility.
- (9) The department shall not unseal sample-collection bags during the drying process.
- (10) The procedure for THC testing used by UK DRS shall be the same for post-harvest retests as those set forth in Section 4 of this administrative regulation.
- (11) A lot having a post-harvest sample with a measured THC concentration exceeding the Acceptable Hemp THC Level shall be deemed non-compliant.

## **Section 7. Disposal of non-compliant harvested materials.**

- (1) If a lot is designated for mandatory disposal, then the department shall ensure that all leaf material and floral material from that lot is disposed of using one of the procedures set forth in this Section of this administrative regulation. The costs of disposal, if any are incurred by the department, shall be charged to the license holder.
- (2) Disposal by on-site destruction with department supervision. Without removing the harvested material from the license holder’s premises (or other licensed premises where the harvested material is located), a department employee shall personally observe the harvested material’s destruction (i.e., the act of rendering it into a useless and non-retrievable state) using one of these methods:
- (a) by grinding it up and incorporating it (by plowing or disking) into the soil; or
  - (b) by controlled incineration.
- (3) Disposal by on-farm transfer to a person who is registered or authorized by the department to accept controlled substances for the purposes of destruction. At the premises of the license holder (or other licensed premises where the harvested material is located), a

department employee shall load, or observe the loading, of the harvested material until the transfer is complete.

(4) Disposal by vehicle transport to a department-approved location.

(a) Prior to the transport: At the premises of the license holder (or other licensed premises where the harvested material is located), a department employee shall load, or observe the loading, of the harvested material until the material is completely secured on or in the vehicle.

(b) During the transport: A department employee shall accompany the harvested material as it moves in a vehicle directly to a department-approved location. The vehicle shall constantly move towards its final destination without unnecessary stops, stops for reasons unrelated to the transport task, or stops of an extended duration.

(c) After the transport: Upon arrival at the department-approved location, a department employee shall unload, or observe the unloading, of the harvested material until the material is completely removed from the vehicle.

(d) Following the material's removal from the vehicle, a department employee shall personally observe the harvested material's destruction (i.e., the act of rendering it into a useless and non-retrievable state) using one of these methods:

- (i) by grinding it up and incorporating it (by plowing or disking) it into the soil; or
- (ii) by controlled incineration.

### **Section 8. Incorporation by Reference.**

(1) The following material is incorporated by reference:

(a) UK DRS SOP# HMP-LB-002 (Procedures for Measuring Delta 9 THC Content in Industrial Hemp by Gas Chromatography with Flame Ionization Detection), July 2019 edition; and

(b) SOP# HM-LB-001 (Procedures for Receiving, Preparing and Releasing Hemp Samples), August 2019 edition.

(2) These materials may be inspected, copied, or obtained, subject to applicable copyright law, at the Kentucky Department of Agriculture, Office of Agricultural Marketing, 105 Corporate Drive, Frankfort, Kentucky 40601, Monday through Friday, 8:00 a.m. to 4:30 p.m.

These materials may also be obtained at [www.kyagr.com](http://www.kyagr.com).