

Remediation and Disposal Guidelines for Hemp Growing Facilities
U.S. Domestic Hemp Production Program
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Purpose:

1. Standard Remediation and Disposal guidelines are specified for commercial indoor and outdoor production of hemp as well as the production of hemp for research purposes.
2. Remediation refers to any process by which non-compliant hemp (THC concentration > 0.3%) is rendered compliant (THC concentration ≤ 0.3%). Remediation can be achieved by separating and destroying non-compliant flowers while retaining stalks, leaves, and seeds; or by shredding the entire hemp plant to create a homogenous “biomass” that can be retested for THC compliance.
3. Disposal means destroying non-compliant hemp or hemp for research purposes using one of the approved on-farm methods. Approved methods include plowing under, mulching / composting, disking, bush mowing, deep burial, and burning.

Scope:

1. Commercial lots shall be subject to remediation or disposal when a sample tests over the acceptable hemp THC level according to laboratory results obtained through, USDA approved State or Tribal sampling and testing protocols or USDA sampling and testing protocols.
2. Commercial lots that test above the acceptable hemp THC level shall be subject to either remediation or disposal.
3. Samples must be collected by a USDA-approved sampling agent, an approved state agency, or by a Federal, State, or Tribal law enforcement agent authorized by USDA to collect samples.
4. It is the responsibility of the licensed producer or researcher to pay any fees associated with resampling, remediation, and/or disposal.
5. Producers must verify disposal or remediation by submitting required documentation in accordance with 7 CFR §990.27. All records regarding disposal and remediation of all cannabis plants that do not meet the definition of hemp shall be made available for inspection by State, Tribal, or USDA inspectors, auditors, or their representatives during reasonable business hours in accordance with an applicable State or Tribal plan or §990.28.
6. Laboratories should have an effective disposal procedure as part of an internal SOP for non-compliant samples.

Summary of Practice:

1. This practice provides procedures for ensuring the disposal or remediation of non-compliant hemp. When a cannabis sample tests over the acceptable THC concentration level, all cannabis plants in the lot shall either be remediated to bring the lot under the acceptable THC concentration level, or all cannabis plants shall be disposed of. Both remediation and disposal

may be performed by the producer, researcher or an approved representative of the State, Tribe, or USDA.

In accordance with §990.3, the State or Tribal plan shall include methodologies for ensuring that non-compliant hemp is properly remediated or destroyed. This may come in the form of in-person verification by State or Tribal representatives, or alternative requirements that direct growers to provide pictures, videos, or other proof that disposal or remediation occurred successfully. Hemp produced for research must be disposed of in accordance with the applicable State or Tribal plan or §990.21(d), for research conducted with a USDA producer license.

2. Non-compliant hemp plants may be remediated by separating and destroying non-compliant flowers, while retaining stalks, leaves, and seeds.

3. Non-compliant hemp plants may be remediated by shredding the entire hemp plant to create “biomass.” All flowers, buds, trichomes, leaves, stalks, seed, and all plant parts from a lot should be chopped or shredded in such a way as to create a homogenous, uniform blend of the lot called “biomass.” Lots should be kept separate and not be combined during this process. This biomass shall be resampled and retested to ensure the biomass material tests within an acceptable THC concentration level before it may enter the stream of commerce in accordance with §990.3(d) and §990.27(c). If the biomass tests above the acceptable THC concentration level is non-compliant hemp and must be destroyed through one of the disposal options provided herein.

4. Disposal means destroying non-compliant hemp by performing any one or combination of the following on-farm activities: plowing under, mulching / composting, disking, bush mowing, deep burial, and burning.

Equipment and Supplies:

1. Equipment for Remediation

1.2. Gloves

1.3 Shears, clippers, scissors, shredding equipment (to remove non-compliant flowers from stalks)

1.4 Striping, shredding, or mulching equipment

1.5 Large plastic bags or other containers to store shredded biomass

1.6 The bags and containers should be made from material known to be free from THC

1.7 Marking and labeling equipment (to mark and label hemp lots for remediation from other lots)

2. Equipment for Disposal

2.1. Plow or tractor (for plowing, mulching, composting, disking, bush mowing, deep burial)

2.2. Composter (for composting)

2.3 A burn area and fire equipment (for burning non-compliant lots)

3. Equipment for Resampling

3.1. Disposable gloves – Nitrile

3.2. Scoop with long handle (cleaned prior to and following each sample)

3.3 Bag to store resample

3.4. Permanent markers

3.5. The bags should be made from material known to be free from THC

3.6. A 750 mL or similar measuring instrument (cleaned prior to and following each sample)

Remediation Guidelines:

1. The licensee or designated employee; or an approved representative of the State, Tribe, or USDA shall remediate or destroy non-compliant hemp in accordance with §990.3(d) and §990.27(c). As part of a State or Tribal plan, a State or Tribe shall create procedures for ensuring that any non-compliant hemp parts or biomass that are non-compliant with the acceptable hemp THC level after remediation are properly destroyed and unable to enter the stream of commerce as set forth in 7 C.F.R. § 990.3(a)(6). A State or Tribal plan may require that State or Tribal officials be present during the remediation or disposal process.

2. Upon notification that a lot has tested above the acceptable hemp THC level, the licensee should notify the appropriate licensing authority of the licensee's decision to either destroy or remediate the non-compliant lot in accordance with the State, Tribal, or USDA plan. The licensee shall notify the State, Tribe, or USDA of their decision to either remediate or dispose of the non-compliant lot. Additionally, the licensee should notify the State, Tribe, or USDA, of the remediation or disposal method set forth in §990.70 and §990.71.

3. If the licensee chooses to remediate the non-compliant lot, the licensee should select either to separate and remove all flowers from stalks, leaves and seeds of the lot or to shred the entire lot into "biomass."

4. Separation and removal of the flowers from stalks, leaves and seeds:



4.1 The flowers, including buds, trichomes, "trim," and "kief," should be removed from the lot and destroyed. As part of a State or Tribal plan, State and Tribes should include acceptable methods for the removal of non-compliant flowers and floral material under this remediation strategy. Methods may include, but are not limited to, the removal, by hand, of non-compliant flowers and floral materials and the mechanical removal of non-compliant flowers and floral materials.

4.2 Until such time as the non-compliant flowers and floral material are disposed of, the stalks, leaves, and seeds should be separated from the non-compliant floral material and clearly labeled and demarcated as "hemp for remediation purposes."

4.3 Seeds removed from non-compliant hemp during remediation should not be used for propagative purposes.

5. Creation of Biomass



5.1 The entire lot, as reported to the FSA, should be shredded to create a homogenous, uniform biomass. As part of a State or Tribal plan, State and Tribes shall include acceptable methods for the creation of biomass under this remediation strategy. Methods may include, but are not limited to, the shredding of hemp plants through shredders, composters, or specialty mechanical equipment.

5.2 The biomass created through this process shall be resampled and retested to ensure compliance before entering the stream of commerce in accordance with §990.3(a)(6) and §990.27(c). Biomass that fails the retesting is non-compliant hemp and shall be destroyed.

5.3. Remediated biomass should be separated from any compliant hemp stored in the area and clearly labeled and demarcated as “hemp for remediation purposes.” All lots subject to remediation should be stored, labeled and demarcated apart from each other and from other compliant hemp lots stored or held nearby.

5.4. Remediated biomass should not leave the labeled and demarcated area until a test result showing compliance with the acceptable hemp THC level is received or until the biomass will be destroyed.

Re-sampling Remediated Biomass:

1. Remediated biomass shall be resampled and retested to ensure compliance before entering the stream of commerce in accordance with §990.3(a)(6) and §990.27(c). Biomass that fails the retesting shall be destroyed.

2. The resample should be taken by sampling agent as described in the “Sampling Guidelines.”

3. A representative sample of the biomass should be taken for compliance purposes. When taking the resample, the sampling agent should take biomass material from various depths, locations, and containers in the labeled and demarcated area to collect a representative sample of the material. At minimum, ~750 mL or three (3) standard measuring cups of biomass material should be collected. Sampling agents may collect more biomass material based on the requirements of the testing laboratory. If ~750 mL of material is not available, the sampling agent should collect enough biomass material for a representative sample.

4. An original copy of the resample test results, or a legible copy, should be retained by the producer or an authorized representative and available for inspection for a period of three (3) years from the date of receipt.

5. Laboratories testing a resample should utilize the same testing protocols as when testing a standard sample as described in the “Laboratory Testing Guidelines.”

Disposal Guidelines:










Photo Example	Ag Production Activity	Compliant outcome	Photo Example
	<p>Plowing Under</p> <ul style="list-style-type: none"> • Curved plow blades rotate subsoil to surface and bury crop below 	<p>Plowing Under</p> <ul style="list-style-type: none"> • “Green Manure” • Amends soil directly from crop 	
	<p>Mulching / Composting</p> <ul style="list-style-type: none"> • Fields crops cut and blended with manure or other biomass material 	<p>Mulching / Composting</p> <ul style="list-style-type: none"> • “Green Manure” • Mulch mixed with manure or other biomass 	
	<p>Disking</p> <ul style="list-style-type: none"> • Leveling of field using tow-behind disk implement 	<p>Disking</p> <ul style="list-style-type: none"> • “Green Manure” • Amends soil directly from crop while leveling field 	

Photo Example	Ag Production Activity	Compliant outcome	Photo Example
	<p>Bush Mower / Chopper</p> <ul style="list-style-type: none"> Commercial lawn mower used to shred and mix thick vegetation 	<p>Bush Mower / Chopper</p> <ul style="list-style-type: none"> “Green Manure” Shredded biomass decomposes into soil 	
	<p>Deep Burial</p> <ul style="list-style-type: none"> Fields are trenched, surface soil is buried at depth of at least 12” 	<p>Deep Burial</p> <ul style="list-style-type: none"> Field biomass buried in trenches and covered with soil 	
	<p>Burning</p> <ul style="list-style-type: none"> Setting fire to specific production fields or biomatter piled on the field 	<p>Burning</p> <ul style="list-style-type: none"> Fields are cleared of all plant material 	

Note: In accordance with 7 CFR 1.901(e), the contents of this document does not have the force and effect of law and are not meant to bind the public in any way, and the document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies.