

## Proposed Modifications to:

### 1.2 DEFINITIONS

“**Agricultural wastes**” means all discarded or residual plant materials or animal materials that directly result~~solid wastes resulting~~ from the raising of crops or animals ~~on land zoned agricultural by local requirements~~, including animal manures, that are 1) returned to the soils as fertilizer, soil conditioners, or compost, or 2) are composted to return to the soils, or 3) are used for other agricultural purposes. In addition, agricultural waste means all carcasses and carcass by-products resulting from any mass livestock mortality that is the result of an all-hazards event or depopulation ordered by the state veterinarian or other appropriately designated authority.

“**Composting**” means the biological process of degrading organic materials that is facilitated and controlled through intentional and active manipulation. ~~of piles and windrows~~. These manipulations may include but are not limited to grinding, mixing of feed stocks and bulking materials, addition of liquids, turning of piles, vermicomposting, or mechanical manipulation.

“**Anaerobic digestion**” means a series of biological processes in which microorganisms break down biodegradable materials in the absence of oxygen. Anaerobic digestion of biodegradable materials creates biogas.

“**Custom mill**” means ~~an operation or facility for the extraction of metals or minerals from ores. Such a facility receives its raw materials from one or more sources off-site of the mill property.~~

## **Statement of Basis and Purpose:**

### **Discussion of Regulatory Changes**

#### I. Changes to the definition of “Agricultural Wastes”

In Colorado law, “agricultural wastes” are specifically excluded from those materials that are solid waste. The statute, in § 30-20-101(6)(b)(II), C.R.S., states that “ ‘Solid Waste’ does not include: . . . Agricultural wastes.” However, the term “agricultural wastes” is not defined in statute.

To clarify and improve the definition, it is necessary to delete the words “*solid wastes*” in the first phrase of the definition and replace it with the phrase “*discarded or residual plant materials or animal materials.*” Using the term “solid waste” in the definition of a term that describes a material that is not “solid waste” creates confusion.

The phrase “*on land zoned agricultural by local requirements*” is being stricken. Agricultural wastes can be generated on land that is not necessarily zoned “agricultural.” Wastes such as manures and crop residues can be generated on residentially, commercially, and even industrially zoned land. The phrase, “*that directly result* (from the raising of crops or animals)” has been added for emphasis and clarity. Additionally, agricultural wastes may be used for other purposes such as animal feed or animal bedding. Therefore, the phrase “*or are used for other agricultural purposes*” has been added.

Agricultural wastes are excluded from regulation as solid waste even if they undergo processing or treatment. This means, for instance, that anaerobic digestion using only agricultural wastes as inputs would generate only agricultural wastes along with the methane gas that is used on-site or sold. On the other hand, food processing generally starts with agricultural products, not agricultural wastes. Therefore, food processing wastes would be solid wastes even if they are applied to soils for fertilizer, soil conditioners, or compost.

In all-hazard events or depopulation events caused by such things as blizzards or diseases, such as bird flu, burial pits are sometimes necessary to deal with the large numbers of animal carcasses. The Colorado Department of Agriculture (CDA) is the lead regulatory agency overseeing the response to these events. By policy and per a Department memorandum of understanding with CDA, such carcasses and carcass by-products remain agricultural wastes even if they are disposed of in or on the land and are not used as a fertilizer, soil conditioner, or compost. The flexibility to use burial pits as part of the response to such events needs to be preserved.

#### II. Changes to the definition of “Composting”

The definition of “composting” is being changed in two places. First, vermicomposting is being added as an additional type of composting. Vermicomposting is a method of

using worms to transform organic waste into a nutrient-rich fertilizer. Though a small niche in the composting industry, vermicomposting is a well-established and traditional composting method. Second, the phrase “*of piles and windrows*” is being removed from the definition because not all composting utilizes piles and/or windrows.

### III. Addition of a definition for “Anaerobic Digestion”

As anaerobic digestion becomes an increasingly common treatment for organic waste streams, the Department is getting many inquiries about how and when the process will be regulated. While the term “anaerobic digestion” does not currently appear in the Solid Waste regulations, anaerobic digestion of solid waste, for the intended purpose of biogas creation, could be regulated by various combinations of Section 2 (minimum standards), Section 8 (beneficial use), Section 9 (surface impoundments), Section 14 (composting), and Section 18 (waste grease), depending on the design and operation of the facility. Anaerobic digestion of materials that are solid wastes also creates liquid, semi-solid and solid digestates which remain solid wastes until the Department determines such wastes meet applicable fertilizer, soil amendment, compost, or beneficial use criteria. Anaerobic digestion at domestic wastewater treatment works will remain regulated by the Water Quality Control Division because domestic sewage is excluded from regulation as solid waste. The proposed definition comes from the American Biogas Council’s definition of anaerobic digestion.

### IV. Deletion of the definition of “Custom Mill”

The definition of Custom Mill is being deleted from Section 1.2 of the Solid Waste regulations because the term is never used within the regulations and because Custom Mills are not regulated by the CDPHE, but are instead regulated by the Department of Natural Resources in their Division of Mine Reclamation and Safety.