



**STATE OF MISSISSIPPI**

PHIL BRYANT  
GOVERNOR

**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY**

TRUDY D. FISHER, EXECUTIVE DIRECTOR

June 6, 2012

Robert and Lisa Dillon  
The Dirt Store at Williamson Nursery  
2040 Johnston Chapel Road  
Summit, MS 39666

**Re: Authorization to Operate Pilot Composting Facility at  
2040 Johnston Chapel Road, Summit, MS 39666**

Dear Mr. and Ms. Dillon:

The Mississippi Department of Environmental Quality (MDEQ) has reviewed your request for authorization to operate a pilot composting facility as part of your business, The Dirt Store at Williamson Nursery, on approximately 2 ½ acres of 16<sup>th</sup> section land owned by North Pike County School District. The approved site is located at 2040 Johnston Chapel Road, Summit, MS 39666.

Based on our assessment of the information provided, MDEQ hereby grants authorization to operate a pilot composting facility at the above mentioned site for a period of up to two (2) years. Prior to June 5, 2014 this composting operation will be evaluated by MDEQ to determine the proper application of State regulatory requirements for continued operation. The composting operation shall be managed in a means consistent with the approved plan of operation and with the following conditions:

1. A minimum setback distance of at least 200 feet shall be maintained between the composting operation and any adjacent residences and any drinking water supply wells.
2. A minimum setback distance of at least 250 feet shall be maintained between the composting operation and the nearest state surface water body (e.g. lakes, rivers, creeks, streams, etc.).
3. Feedstock storage piles and compost piles/windrows shall not exceed 12 feet in height and should not exceed 5,000 cubic yards in total volume on site at any given time. Adequate fire lanes shall be maintained between feedstock storage piles and compost piles/windrows. In addition, appropriate fire control and extinguishment equipment shall be available on-site at all times.
4. Adequate security and monitoring shall be established and maintained at the site to prevent uncontrolled access and disposal.
5. Prior to the unloading of each waste load, the operator or designated personnel of The Dirt Store at Williamson Nursery shall visually inspect each waste load and remove any materials other than those described in the approved plan of operation. These approved materials are leaves, chicken litter, horse/cow/donkey manures, wood chips, hay, wheat straw, and clay. The operator must obtain approval from MDEQ prior to the incorporation of any additional materials into the composting facility operations.

OFFICE OF POLLUTION CONTROL

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6. The operator should insure that incoming waste loads that contain significant amounts of unauthorized wastes are not unloaded at the compost site. Incidental amounts of unauthorized wastes identified after waste unloading at the site shall be separated and temporarily stored away from the feedstock storage area for removal to an appropriate permitted disposal facility.
7. The operator of The Dirt Store at Williamson Nursery shall ensure that storm water from the composting site operations is managed appropriately. The following storm water control measures should be implemented:
  - a. Storm water and other waters upslope from the active composting areas and feedstock storage areas shall be diverted where possible away from these areas to prevent run-on.
  - b. The operator is encouraged to minimize the amount of surface area of the feedstock and compost piles or windrows exposed to rainfall to the extent possible.
  - c. Best management practices (BMP's) should be implemented around the feedstock and compost piles/windrows to limit impacts from storm water runoff from the exposed piles. These BMP's may include preservation of existing vegetation, straw bale dikes, silt fences, earthen dikes, drainage swales, sediment traps, and temporary sediment basins.
  - d. Storm water leaving the site shall be generally free of debris and other floating or suspended materials.
  - e. The operator is encouraged to implement provisions that would minimize off-site vehicle tracking of yard wastes, compost, or other sediments.
  - f. The operator shall conduct storm water inspections routinely and shall repair, replace or supplement non-functioning storm water controls within 24 hours of discovery.
8. The following requirements must be met prior to the selling or distribution of any compost produced:
  - a. Compost must be produced by a process that encompasses turning on a regular basis to aerate the waste, maintain temperatures, and reduce the potential for vectors and pathogens and for off-site odors.
  - b. A composite sample of compost shall be taken and analyzed at intervals of every 500 cubic yards of compost produced or every six months, whichever comes first. The MDEQ may alter the frequency of these sampling events upon review and consideration of historical analytical data. At a minimum the following tests shall be conducted on the sample:

<u>Parameter</u>	<u>Units to be Expressed</u>
Moisture	%
Total Nitrogen	% dry weight
Ammonia Nitrogen	% dry weight
Nitrate Nitrogen	% dry weight
Total Phosphorus	% dry weight
Total Potassium	% dry weight
Organic Matter	% dry weight
pH	standard units
Arsenic, Total	mg/kg dry weight
Barium, Total	mg/kg dry weight
Cadmium, Total	mg/kg dry weight
Chromium, Total	mg/kg dry weight

Copper, Total	mg/kg dry weight
Lead, Total	mg/kg dry weight
Mercury, Total	mg/kg dry weight
Selenium, Total	mg/kg dry weight
Silver, Total	mg/kg dry weight
Zinc, Total	mg/kg dry weight
Fecal Coliform	MPN/g or CFU/g dry weigh

- c. If the compost analysis results for any of the above listed metals exceed the characteristic standards of Table A below, the compost should be re-analyzed for the metals for which these levels were exceeded by the Toxicity Characteristic Leaching Procedure (TCLP) to confirm that the material does not exceed the leachability standards of Table B below.

**Table A.**

**Total Metal Thresholds**

Contaminant	Regulatory Level (mg/kg)
Arsenic	10.0
Barium	200.0
Cadmium	2.0
Chromium	10.0
Lead	10.0
Mercury	0.4
Selenium	2.0
Silver	10.0

**Table B.**

**Leaching Procedure Thresholds**

Contaminant	Regulatory Level (mg/kg)
Arsenic	0.5
Barium	10.0
Cadmium	0.1
Chromium	0.5
Lead	0.5
Mercury	0.02
Selenium	0.1
Silver	0.5

- d. Composite samples of compost taken pursuant to this section shall consist of at least five individual samples of equal volume taken from separate areas along the side of each pile of finished compost. Each sampling point shall be at a depth of two feet into the pile from the outside surface.
- e. Analysis shall be conducted by methods approved by the U.S. Environmental Protection Agency (U.S.EPA) or MDEQ. Records shall be kept of these analysis including:
1. the dates all analyses were performed;
  2. the person or contract lab who performed all analyses;
  3. the analytical techniques or methods used; and
  4. the results of all analyses.
- f. Compost must be classified as mature. Mature compost is defined as highly stabilized compost material that has been exposed to prolonged periods of decomposition. It will not reheat upon standing to greater than 20°C above ambient temperature. The material should be brown to black in color.
- g. Compost must be classified as fine. Fine compost is defined as compost that will pass through a 10mm screen.
- h. Compost shall have a moisture content no higher that 60% at the time of distribution.

- i. Compost shall be of good chemical quality. This is determined by the characteristic standards in Table A and, where applicable, the leachability standards of Table B as described in Section 7.c.
9. Records of analytical testing and monitoring shall be maintained for a period of at least five (5) years and shall be available for inspection by MDEQ personnel during normal business hours or sent to MDEQ upon request. An annual report shall be submitted to MDEQ on or before February 28<sup>th</sup> of the following calendar year. This report shall include the most recent records of laboratory analysis conducted on compost produced at the facility as outlined in Section 7.e. The annual report shall be filed on a reporting form provided by MDEQ, which will include the following information:
    - a. the facility name and address and the year covered by the report;
    - b. the total quantity, volume (cubic yards) or weight (tons), of the material received for composting.
    - c. the total quantity, by volume or weight, of all unauthorized wastes separated from the waste or compost, and a description of how the materials were disposed of or managed.
    - d. the total quantity, by volume or weight, of the compost produced;
    - e. the total quantity, by volume or weight, of the compost removed from the facility and a description of how the compost was distributed or used; and
    - f. the remaining capacity for storage of compost at the facility based upon the amount of compost on site at the beginning of the year, the amount of compost produced, and the amount removed during the year.
  10. It is the responsibility of the owner and/or operator of The Dirt Store at Williamson Nursery to maintain the right to the use of the property for which this authorization is issued, including the access route. The granting of this authorization does not convey any property rights outside the scope of the authority under which the authorization is issued.

The Dirt Store at Williamson Nursery is responsible for maintaining compliance with the operating requirements as outlined above. The MDEQ reserves the right to inspect the composting operations at all reasonable times. MDEQ also reserves the right to withdraw or modify the approval for the pilot project or to require that a formal solid waste management permit be obtained if problems are encountered in the pilot operations or if the operations expand to the extent that a formal permit is appropriate. Should you have any questions or comments, please contact Jennifer Milner with the Solid Waste Management Programs at MDEQ at 601-961-5739.

Sincerely,



Jennifer Milner  
Environmental Administrator  
Solid Waste Policy, Planning, & Grants Branch