



Minnesota
Pollution
Control
Agency

Yard waste compost facilities: inert material testing

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Municipal Division

Solid Waste Section

Land Policy Unit

In 1996, the Minnesota Pollution Control Agency (MPCA) promulgated Minn. R. 7035.2836, which governs both yard waste and solid waste compost facilities. This rule requires yard waste compost facility operators to have no more than 3 percent (3%) inert materials larger than 4 millimeters (mm.) in the final compost product. "Inert material" is defined in Minn. R. 7035.0300 as uncompostable material remaining in a compost system after decomposition. Inert material does not include soil particles or other naturally occurring materials that may be found in the compost system, such as wood chips or small clumps of yard waste that did not break down. Inert materials are man-made, nonbiodegradable plastic, glass, metal or other types of materials that are left in the final compost product.

Limiting the amount of inert materials in the final compost product will enhance compost markets by increasing consumer acceptability. In addition, yard waste compost facilities can only accept and compost yard waste. "Yard waste" is defined in Minn. Stat. 115A.03, subd.38 as garden wastes, leaves, lawn cuttings, weeds, shrub and tree waste and prunings. It is the compost facility operator's responsibility to accept only the above materials for composting. If the yard waste contains inert materials or if it is left in nonbiodegradable plastic bags, the rules require these residuals to be stored and removed at least weekly. Many compost operators only accept yard waste in bulk or have residents empty the plastic bags and take the bags home with them.

Testing procedure for measuring inert materials

The inert test limits inert material to 3 percent (3%), and these can be measured in the following steps:

1. Collect four 250-cubic-centimeter samples of the final compost product.
2. Dry each sample in a 70-degree-Celsius oven.
3. Passing the sample through a 4 mm. sieve.
4. Visually inspect the material that remains on the sieve.
5. Remove inert materials remaining on the sieve, including all plastic, metal and glass.
6. Weigh the amount of the inert materials removed from the sample.
7. Divide the weight of the inert materials by the weight of the entire sample and multiply by 100 to obtain the percentage of inert material.
8. Repeat this process for each of the four samples.

Reporting requirement

As part of the annual reporting requirements found in Minn. R. 7035.2836, subp. 3, all yard waste compost facility operators are required to measure the amount of inert materials in the final yard waste compost product and report it on the facility's annual report (See <http://www.pca.state.mn.us/waste/swpermits.html>).

For more information about inert material testing, contact Roberta Wirth at the MPCA (phone 651-296-7384, e-mail roberta.wirth@pca.state.mn.us).