

October 29, 2008

Chad A. Stobbe, Environmental Specialist Senior
Iowa Department of Natural Resources
Land Quality Bureau
502 East 9th Street
Des Moines, IA 50319-0034

Dear Mr. Stobbe:

I have reviewed the proposed update to Iowa Administrative Code 567 Chapter 108. I am concerned about the beneficial reuse designation for coal combustion waste (CCW) to be added to compost. Studies I could find on this subject are relatively few and are dated. Furthermore, the uses of compost have expanded tremendously in recent years to include biofilters, storm water management, rain gardens, application to parks and athletic fields, and application of compost not fit for sale onto agricultural fields. A beneficial reuse determination of this type ignores issues related to documented CCW contaminants such as arsenic, cadmium, molybdenum, and lead, which have the ability to leach into water resources. One study claims that the aging process of composting would cause contaminants to leach out. But where do they leach to? Industrial sludge compost facilities are typically no-discharge facilities. During industrial composting these leached CCW contaminants are continually introduced back into the compost from basins to maintain moisture levels. Therefore, all CCW contaminants that enter the facility will go out of the facility in the compost. The contaminants will be concentrated in the compost at levels higher than the original mix ratio would indicate due to evaporation.

Iowa Administrative Code 567 Chapter 105 requires the composting to be done according to Best Management Practices, which is defined as the most recent version of the Compost Facility Operating Guide published by the United States Composting Council (USCC). This is the USCC 1999 "Supplement to the Composting Facility Operating Guide." The Guide does not include coal combustion waste in their categorical list of materials suitable for composting. In fact, to the contrary it states on page 14 of 77:

"Chemical contamination in compost is primarily a function of chemicals present in waste set out at curbside. Of particular concern are items that contain chemicals regulated by federal and state rules such as arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium and zinc."

Testing required by IAC 567 § 105.9(4)(c)(2) does not cover contaminants associated with CCW such as iron, manganese, molybdenum, strontium, sulfates and vanadium. Best Management Practices indicate that these chemicals should not be in materials accepted for composting; further supporting that CCW should not be allowed in compost.

Compost facilities in Iowa are typically managed as open air windrows. Frequent turning creates fugitive dust in dry conditions. CCW contaminants in the dust will become airborne and drift to workers and neighbors. Some of the harmful chemicals in that dust have been captured from stacks during the coal combustion process, and should not be

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allowed to become airborne again. This simply moves the toxic hazard from coal power plant stacks to compost facility neighbors.

The market for compost in Iowa is regional and typically is limited to approximately 50 miles from the compost facility. Certain private venture facilities are more interested in disposing of compost as an agricultural amendment, or basically land application. This occurs when the business plan is based upon profits for acceptance of the waste, not marketing of the finished product. When this is the scenario, the land within 50 miles of the compost facility will be repeatedly land applied with compost containing low levels of CCW contaminants. This level will build up on the land. I am not aware of any studies showing how long this model is sustainable. Is it 10 years, 50 years, or 100 years before contaminants show up in ground and surface water, crops, and animals? The current discovery of CCW contaminants showing up in ground water from CCW beneficial fill sites across Iowa should cause the Department to proceed with caution, and to err on the side of protection of human health, safety and the environment.

For these reasons, I respectfully request that "compost amendment" be removed as a beneficial reuse for 108.4(4) Coal combustion by-products.

Thank you for your consideration of this issue.

Sincerely,



Jan Heeren
11509 Saint Patrick's Road
Fairfax, Iowa 52228