



# CITY OF RAPID CITY

RAPID CITY, SOUTH DAKOTA 57701-2724

## PUBLIC WORKS DEPARTMENT

Solid Waste Division

### Odor Control Plan For the Rapid City Material Recovery Facility

In response to odor complaints surrounding the Material Recovery Facility the Division has established a plan to address public concerns. Several key steps are planned to identify the specific source of the odors, and quantify the chemicals involved, and to determine an improved method of control.

1. The following items will be initiated immediately:
  - a. Conduct baseline testing for chemicals known to produce odors in compost facilities to determine amounts and specific locations of the chemicals being produced. The testing will provide information to assist in modification of composting processes and odor treatment processes to reduce or eliminate odors. (Testing will be started the week of January 12, 2007 using a simple draeger tube test. This will be followed up with more intensive monitoring using various methods identified by an air quality laboratory.)
  - b. Establish a hotline for customers to call in odor complaints. The Division will establish a dedicated line with an answering machine that asks for the location and nature of the complaint, and a name and phone number. This information would be reviewed daily and compared to data on wind direction and speed, and Material Recovery processes that are occurring at the time of the complaint. (Currently in process of identifying spare phone lines.)
  - c. The biofilter media will be replaced immediately, and the biofilter irrigation system will be rebuilt. (The biofilter media has been degraded and the irrigation system is not evenly distributing water resulting in breakdown of the media in some areas, and areas that are too dry facilitate minimal bacterial break down of odor causing chemicals. This results in pass through of odors.)
  
2. Using the data provided from the Hotline and the testing program, identify and further investigate potential solutions including:



EQUAL OPPORTUNITY EMPLOYER

- a. Investigate costs of aerating the final compost storage piles. This could be done through active aeration with a blower system, or passively through use of a bulking agent or plastic media to produce air spaces in the compost. (Shredded tires have been used as bulking media in some locations.)
- b. Investigate alternative biofilter media types that would have improved results. (Soil may be one option.)
- c. Investigate the use of a stack or chimney for odor dispersal.
- d. Determine potential methods and materials and costs for enclosing the secondary compost storage building.
- e. Investigate coverings that could be placed directly on top of the compost piles to help seal in and control odors.
- f. Investigate the potential for scheduling changes in the compost operation. The purpose would be to conduct operations that produce more significant odors during periods of low public exposure.

