Attachment M

Dane County Landfill Site No. 2 Dust Control Plan

Prepared for:

DANE COUNTY DEPARTMENT OF
WASTE & RENEWABLES

May 10, 2023

Fugitive Dust Plan

Dane County Landfill Site #2 Rodefeld

7102 US Hwy. 12 & 18

Madison, Dane County, Wisconsin

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1.0 INTRODUCTION

This Fugitive Dust Control Plan has been prepared to address the control of fugitive and airborne dust emission from potential construction and daily operation activities at Rodefeld Landfill, and is consistent with the requirements of the facility's Title V Permit, and of Section 439.03 of the Wisconsin Administrative Code [s. NR 439.03, Wis. Adm. Code].

The primary objective of this plan is to formulate a strategy for controlling, to the greatest extent practicable, fugitive, or airborne dust emission at the Dane County Landfill Site #2 Rodefeld Landfill facility (Rodefeld Landfill). This will be accomplished by identifying specific sources and activities that have the highest potential to produce or generate fugitive or airborne dust emissions. As necessary, the scope of this plan will be revised to reflect changes in dust control strategy as site conditions or activities may change in the future.

As a precautionary and control measure for site activities, this Dust Control Plan will be used as a standard operating procedure. This plan will be used:

- To minimize or eliminate origins of dust from the site;
- To monitor for dust produced by site activities; and
- To implement corrective actions as the need arises.

The plan is prepared and submitted with the understanding that it can be modified to accommodate actual site conditions as they arise.

2.0 SITE DESCRIPTION

The Rodefeld Landfill, which is owned and operated by the Dane County Department of Waste & Renewables (Dane County), is located in Madison, WI. The landfill disposal unit is a single unit comprised of 12 phases (Phases 1 through 12). All areas have an active, operating GCCS. Rodefeld began waste placement in 1985, with subsequent expansions in 1994 and 2014. About 76 acres have a final cover system, including the grass surface. Additionally, 21 acres have an intermediate cover system with some vegetation present. The remaining 7 acres are still active filling area with a daily cover material. This material is obtained from a single stockpile with partial vegetation cover.

In addition to the landfill, the facility operates a construction and demolition (C&D) recycling center, which facilitates the screening and sorting of various materials, and a renewable natural gas facility, which is used to refine landfill gas generated by the landfill. The facility experiences regular vehicular traffic due to both waste deposit and various facility maintenance activities. Several water tanker trucks, equipped with hoses and sprayers, are located at the facility. Water is available for dust control from two sources, a fire hydrant and two sedimentation basins.

2.1 POTENTIAL FUGITIVE DUST SOURCES

The primary contaminants of concern, with respect to fugitive dust emission at the site are particulate matter, lead, and arsenic. The following work areas have been identified as potential sources of fugitive dust emissions. At a minimum, dust control techniques will be employed in:

- Areas of heavy equipment and vehicular traffic. These areas include but are not limited to the facility entrance road, perimeter roadways, landfill haul roadways, and parking areas.
- Stockpiles, including loading, unloading, and transport of any materials stockpiled at the facility. This includes the soil stockpile used for daily cover in addition to any temporary stockpiles associated with construction or maintenance activities at the landfill.
- Daily cover activities, including the handling, transport, and placement of daily cover materials within the active landfill working area.
- Soil and fill excavation areas or other disturbed ground surfaces (non-vegetated), including incidents of tracked soils or excavated fill materials on roadways.
- The dumping, spreading, grading, and compaction of solid waste materials in the active landfill work area.
- Outdoor crushing and grinding activities associated with the facility's C&D recycling center.

3.0 OPERATING PRACTICES AND CONTROL MEASURES

Daily operation and construction activities will be conducted using methods that minimize dust generation, and site conditions will be evaluated prior to non-working hours in order to minimize possible dust generation while staff is not onsite. The following methods will be used to prevent conditions conducive to dust generation and suppress dust should it occur.

- Paved areas and roads used for construction and daily traffic will be maintained free of tracked soil or fill material, these areas and roads will be cleaned by wet sweeping as necessary.
- Unpaved traffic areas will be wetted as necessary.
- Materials likely to become airborne from haul trucks during transport shall be covered, treated, or secured, and wind fencing will continue to be deployed to catch flying objects from trucks or filling operations (paper and plastic bags).
- Fugitive emissions will be controlled by water misting during outdoor crushing or grinding activities at the facility's recycling center.

3.1 BEST MANAGEMENT PRACTICES

The following Best Management Practices will also be followed to help minimize and control dust emissions at the site to the greatest extent possible.

3.1.1 Roads

All onsite traffic will be restricted to specific designated roads. Off-road travel will only be authorized for well monitoring and maintenance. Traffic speed will also be restricted to an appropriate level on all designated roads. All designated roads will be considered as high potential dust source areas, and as such, will be a priority for dust controls utilizing water and/or gravel.

3.1.2 Stockpiles

All active stockpile areas and non-vegetated inactive stockpile areas will be monitored for fugitive dust emissions. If fugitive dust is observed, these areas may be sprayed with water or a surfactant solution. Any inactive storage piles may be covered with vegetation in order to prevent erosion and fugitive dust emissions. The loading and unloading of materials will also be performed in such a manner to minimize fugitive dust emissions.

3.1.3 Daily Cover

Loading, unloading, and spreading of daily cover materials should be performed in such a manner to minimize fugitive emissions. Stockpile areas and placed material will be monitored for fugitive dust emissions. If fugitive dust is observed these areas, they may be sprayed with water or a surfactant solution to minimize fugitive dust emissions.

3.1.4 Disturbed Ground Area

Landfill cover will be vegetated to prevent erosion, fugitive dust emissions and fugitive landfill gas. Those areas that are non-vegetated due to recent construction or repair activities will be vegetated as soon as possible.
Additionally, these areas will be monitored for fugitive dust/landfill gas emissions. If fugitive dust is observed, these areas may be sprayed with water or a surfactant solution to minimize fugitive dust emissions until vegetation is established. Any areas observed with potential fugitive landfill gas emission will be addressed in compliance with applicable federal regulations.

3.1.5 Active Landfill Work Area

Waste will be unloaded in a manner that will minimize the drop height of the material minimizing fugitive emissions. Materials will be spread and compacted utilizing appropriate landfill equipment shortly after dumping and any dusty materials will be sprayed with water to minimize fugitive dust emissions.

3.1.6 C&D Recycling Center

The creation of dust at the facility will be minimized with a number of dust suppression and dust control measures. Except for the mobile crushing operation, the processes in the recycling center operation shall be placed inside the building, and generated emissions may be vented to the outside air only via general building ventilation. Outdoor crushing and/or grinding activities will take place during non-freezing months so that water misting devices can be used for dust suppression if conditions warrant it.

3.1.7 Hours of Operation

This Plan will be in effect during all hours of operation at the site. During non-business hours, there will be no active generation of dust; therefore, dust control actions will be restricted to hours of operation only. However, as a best management practice, if high winds are evident at the close of a business day, site personnel should evaluate vulnerable areas and implement controls, as appropriate, to minimize off-hours emissions.

4.0 CORRECTIVE ACTION PLAN

Dane County will train and assign appropriate personnel the responsibilities to control fugitive emission in their areas of responsibility. Contact information for the site personnel primarily responsible for dust control and correction actions is listed below.

Title	Name	Phone
Landfill Operations Manager	Paul Howard	608-838-9555

Daily site briefings will reinforce the need for all workers to be cognizant and responsive to conditions or activities that generate visible dust. The supervisor will be notified immediately if dust is observed or if conditions exist where dust could be a problem. The initial step of the plan is to visually observe the infraction.

The sequential corrective action task list for the elimination of fugitive dust at this site is presented below:

1. Reduce the pace of, or cease, dust producing activity until the problem is corrected.
2. Notify the site supervisor of dust conditions and implement dust suppression procedures.
3. Remove accumulated dirt and soil from problematic areas.
4. Increase frequency, volume, and/or coverage of water misting, sprays to prevent soil and dirt from drying.
5. Provide additional dust suppression systems and operating personnel during the task duration.
6. Modify operating procedures and methods to eliminate problematic conditions.
7. Increase level of worker awareness and instruct them on implementation of any new or modified operating procedures

5.0 LIMITATIONS

The work product included in the attached was undertaken in full conformity with generally accepted professional consulting principles and practices and to the fullest extent as allowed by law we expressly disclaim all warranties, express or implied, including warranties of merchantability or fitness for a particular purpose. The work product was completed in full conformity with the contract with our client and this document is solely for the use and reliance of our client (unless previously agreed upon that a third party could rely on the work product) and any reliance on this work product by an unapproved outside party is at such party's risk.

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