



Environmental
Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

March 5, 2012

Advisory *Sewage Sludge Disposal at Solid Waste Landfills*

Ohio EPA's new sewage sludge/biosolids rules¹ went into effect on July 1, 2011. Given the potential for increased disposal of sewage sludge/biosolids during the winter and wet weather conditions, the Division of Materials and Waste Management (DMWM) is providing this advisory to increase awareness of the operational and engineering challenges that may be presented by sewage sludge and to share best management practices that can be employed at landfills to mitigate these issues.

Operational Considerations

As you might expect, there is significant concern of uncontrolled odors leaving the facility boundary during handling and disposal activities when sewage sludge is received. Sources of odors may include loaded and emptied hauling vehicles, track-out and spillage of sewage sludge on haul roads or public roads near the facility, management of sewage sludge at the working face, and increased landfill gas production. Sewage sludge handling at the working face may present operational challenges that could affect the ability to mix and cover the sludge, lead to sludge remaining on landfill equipment, and result in track-out from vehicles.

Landfill owners and operators are expected to strictly manage and control odors such that the quality of life of neighboring residents and businesses is not adversely impacted. In cases where odors emanating from the landfill are detected beyond the facility boundary, local health districts and Ohio EPA may cite the landfill owner and operator in violation of Ohio Administrative Code Rule 3745-27-19(B)(3).

Engineering Considerations

In cases where sewage sludge volumes become a significant percentage of the total waste receipt, gas collection and control systems and other engineering aspects may be impacted.

Gas generation: Co-disposal of sewage sludge can lead to accelerated decomposition of organic wastes and production of landfill gas. Due to this acceleration, gas collection and control systems may not be adequately sized to collect and control the volume of gas produced. Ohio EPA encourages you to be on top of this issue. Once your landfill has started generating excess gas and off-site odors are adversely impacting neighboring residents and businesses, the situation is more difficult and time-consuming to correct. Landfill owners and operators should consult with their consultants and engineers to determine if installation of additional gas collection and control system components is appropriate, irrespective of timelines associated with New Source Performance Standards and other applicable requirements. In cases where odors emanating from the landfill are detected beyond the facility boundary, local health districts and Ohio EPA may cite the landfill owner and operator in violation of Ohio Administrative Code Rule 3745-27-19(B)(3).

¹ You may download them at http://www.epa.ohio.gov/dsw/rules/3745_40.aspx

Slope stability: The addition of a large percentage of low-strength waste may create slope stability problems at the landfill. Landfill owners and operators should consult with their consultants and engineers to evaluate the effects to slope stability and other engineering aspects that may result from the disposal of sewage sludge. When necessary, the licensing authority may consider including special terms and conditions in the annual operating license to ensure that the integrity of the engineered components is maintained and the disposal of sewage sludge is performed in a manner that is protective of human health, safety, and the environment.

Compliance Support

Although sewage sludge disposal presents various challenges, with the proper controls at both wastewater treatment plants and landfills, sewage sludge can be handled and disposed of without creating nuisance odor conditions or significantly impacting the effectiveness of the landfill's gas collection and control system. Prior to accepting sewage sludge for disposal, landfill owners and operators are advised to consider and address what type and level of pretreatment will be required, what volume will be manageable, and what operational and engineering controls will be necessary.

I appreciate your attention to this matter. If you have any questions or concerns, please feel free to contact your appropriate Ohio EPA district office or DMWM's Solid Waste Compliance & Inspection Support Unit at (614) 644-2621.

Sincerely,

Pamela S. Allen, Chief
Division of Materials and Waste Management