

# Odor Issues with Veolia ES Orchard Hills Landfill and Winnebago Landfill

Ogle and Winnebago Counties, Illinois

Fact Sheet # 1

January 22, 2010

## Introduction

The Illinois Environmental Protection Agency (Illinois EPA) has prepared this fact sheet to provide information about landfill odors that residents have been experiencing from the Veolia ES Orchard Hills Landfill and the Winnebago Landfill. Fact sheet updates will be distributed as landfill gas mitigation activities progress at each facility to keep area residents better informed.

Under the authority of the Illinois EPA, the Veolia ES Orchard Landfill in Ogle County is inspected and regulated by the Ogle County Solid Waste Management Department. A Violation Notice (VN) was issued to Veolia ES Orchard Landfill on May 28, 2009 for alleged violations of environmental regulations found during a routine inspection. On July 29, 2009, the Ogle County Solid Waste Management Department issued an Acceptance of Compliance Commitment Agreement (CCA) to Veolia ES Orchard Landfill in response to the Violation Notice. The CCA stated that Veolia ES Orchard Landfill would address all points noted in the VN, including odor control measures.

Inspections of both landfills between the dates of August 25, 2009 and December 28, 2009 did not detect any notable nuisance odor conditions crossing facility property lines. The Illinois EPA then completed a full inspection of the Winnebago Landfill on December 29, 2009, and partial inspections of both landfills on January 7, 2010. Notable sulfur-like odors were detected during these inspections at each landfill. The Illinois EPA will continue to inspect the Winnebago and Veolia ES Orchard Landfills and work with the facilities to evaluate landfill operations in an effort to ensure the health and safety of the community and the environment are protected during operation of the facilities, and that the facilities operate in compliance with all pertinent environmental laws and regulations.

What are landfill gases?

Landfill gases are colorless vapors that are produced at solid waste landfills and other waste disposal sites where trash and garbage are buried in the ground and covered with dirt. Over time, bacteria in the soils will break down (decompose) the wastes in the landfill. The by-product of the bacterial break down of the garbage and other wastes produce gases including sulfurous gases and methane.

How can landfill gases be detected?

Landfill gases can be detected in the environment by odors and with monitoring equipment. Landfill gases commonly contain methane but may also contain sulfurous gases which produce a foul, rotten egg odor. Sulfurous gas odors can be detected at very low levels. However, methane gas, which is produced from decomposing waste, is odorless.

Sulfurous gas, one being Hydrogen Sulfide (H<sub>2</sub>S), is a common constituent that is flammable and colorless with a characteristic odor of rotten eggs. It is commonly known as hydrosulfuric acid, sewer gas, and stink damp. People usually can smell it at very low concentrations below 10 parts per billion (ppb).

How can hydrogen sulfide affect my health?

Hydrogen sulfide gas can irritate the eyes, nose and throat. Eyes may become watery, red and itchy. Exposure to H<sub>2</sub>S at levels above 10 ppb can cause headaches, nausea (upset stomach), fatigue (feeling tired), shortness of breath, chest pain and other health-related symptoms. Usually, these symptoms occur at the time of exposure and end within a short time after the odor disappears. For more information concerning hydrogen sulfide gas please refer to the IL. Department of Public Health link:

<http://www.idph.state.il.us/envhealth/factsheets/hydrogensulfide.htm>

What do landfills do to control landfill gases?

Landfills are required to capture landfill gases by installing a system of extraction wells drilled into the waste disposal areas. A network of underground piping collects the gases using a slight vacuum and they are typically burned off in an on-site flare or used as a fuel source in an on-site plant that creates electricity which is then sold to power companies. The Winnebago Landfill uses flares and generates electricity. Veolia Landfill uses flares only to control gas emissions

What additional measures are being taken to control the landfill odors?

Winnebago Landfill has recently installed additional gas extraction wells, a gas collection system, and has been using an intermediate daily cover over the area where trash is deposited which includes clay, powdered limestone and compost material to help neutralize odors.

Veolia Landfill has been performing ambient air monitoring both on-site and off-site as well as investigating the potential source of the odors. They have also added additional gas extraction wells and have submitted a permit application proposing a revision to the gas collection/management system to help aid in reducing landfill odors.

**For more information, please contact:**

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**Interested citizens who did not receive this fact sheet directly can contact Jay Timm to be added to the mailing list.**