

Solid Waste Leachate Odor

Introduction

Leachate is the liquid that drains or ‘leaches’ from a landfill. It varies widely in composition regarding the age of the landfill and the type of waste that it contains. It usually contains both dissolved and suspended material. In fact the term “leachate” is so often applied to landfill leachate, both within the waste management industry and outside, that it is easy to forget that leachate is the term used for any liquid produced by the action of “leaching”. Leaching occurs when water percolates through any permeable material.



Leachate usually includes toxic organic and inorganic pollutants, heavy metals, ammonia nitrogen compounds, and other dissolved and suspended contaminants. Careful management of landfill leachate (LFL) is essential to reduce leachate quantity and prevent the unfortunate fate of leachate contamination. In contrast to the management of solid waste incinerators, LFL disposal has serious ecological and health impacts in most developing countries, mainly associated with groundwater, soil, and air pollution.

Leachates from landfills, composting and related processing facilities have the potential to pollute groundwater and surface water bodies which causes dispersion of contaminants and a high biological oxygen demand (BOD) and chemical oxygen demand (COD).

Solution

Valens Company is a pioneer in the field of treating **solid waste leachate odor**. In implementing its solutions, it relies on advanced, promising, fast, and well-established technology. It does not limit itself to mask odor but it completely eliminates it from its source. It builds in its solutions on emphasizing data, the human mind, the modernity of the machine, and alternatives to materials, and through the integration of processes, magnificent results and brilliant outputs are achieved.

Important data before treatment

- **Precipitation**----The addition of precipitation into the landfill waste mass is expected to increase waste degradation resulting in increased gas and odor production.
- **Humidity**----An increase in landfill odor is often reported as rising with high humidity due to the heavier humid air entrapping the odors and allowing them to linger and stagnate.
- **Temperature**-----As ambient temperatures rise, it stimulates molecule movement in landfill gases, which increases odor diffusion.
- **Barometric Pressure**-----On days when the barometric pressure is lower than the pressure of the gases within the landfill, more gas will escape into the atmosphere.
- **Wind**----Wind contributes to spreading landfill gas, increasing the potential area of impact

Benefits

- Rapid removal of odor emissions
- Effective on a wide range of volatile organic compounds (VOCs)
- Removes rather than masks odors
- Improves leachate quality to assist in meeting discharge standards requirements
- Cost effective dosage regime
- 100% natural, biodegradable and non-chemical
- Safe and easy to use
- Harmless to humans and the environment

Contact

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