

## Solid waste odor

### Introduction

Over 2 billion tons of municipal solid waste are produced annually. Improper disposal can lead to adverse health outcomes, for example through water, soil and air contamination. Hazardous waste or unsafe waste treatment such as open burning can directly harm waste workers or other people involved in waste burning and neighbouring communities. Vulnerable groups such as children are at increased risk of adverse health outcomes. Poor waste collection leads to environmental and marine pollution and can block water drains.



Resulting flooding and other standing waters in waste items favour cholera and vector-borne diseases such as malaria and dengue. Degradation of waste at landfills and dumpyards generates gases like Ammonia ( $\text{NH}_3$ ), Hydrogen Sulfide ( $\text{H}_2\text{S}$ ),  $\text{SO}_x$ ,  $\text{NO}_x$ , Total Volatile Organic Compounds (TVOCs), Methane ( $\text{CH}_4$ ), Methyl Mercaptan, etc. therefore, it becomes mandatory for some odour management system to be in place for landfills and dumpyards. at significantly higher concentrations, harmful odours may have a direct effect on human health. It generally leads to vomiting, headaches, nausea, stress, anxiety, frustration, restriction in outdoor activities.

### Solution

Valens Company is a pioneer in the field of treating **solid waste 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.

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## Important data before treatment

- **Waste Composition.** The more organic waste present in a landfill, the more landfill gas is produced by bacterial decomposition.
- **Oxygen in the Landfill.** Only when oxygen is used up will bacteria begin to produce methane. The more oxygen present in a landfill, the longer aerobic bacteria can decompose waste in Phase I
- **Moisture Content.** The presence of a certain amount of water in a landfill increases gas production because moisture encourages bacterial growth and transports nutrients and bacteria to all areas within a landfill
- **Temperature.** Warm temperatures increase bacterial activity, which in turn increases the rate of landfill gas production.
- **Age of Refuse.** More recently buried waste will produce more gas than older waste

## Benefits

- Rapid removal of odor emissions
- Effective on a wide range of volatile organic compounds (VOCs)
- Increases cell density
- Removes rather than masks odors
- Cost effective dosage regime
- 100% natural, biodegradable and non-chemical
- Harmless to humans and the environment

## Contact

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