

Odor Control

Municipal Solid Waste Thailand

Background

On 19th January 2006 air quality analysis was conducted on garbage fermenting tanks at the On Nut Garbage Disposal Plant operated by the Department of Public Cleaning of Bangkok Metropolitan Administration.

Sampling and analysis was performed by Environmental & Resource Development Co. Ltd. The purpose of the sampling was to assess the effectiveness of BiOWiSH™ - Odor in reducing odor emissions from the solid municipal waste and its impact on local residents.



Bangkok Metropolitan Site

Testing

Sampling was undertaken prior to application of BiOWiSH™ - Odor and then again 10 minutes following the application.

The table below shows the tests completed:

Parameter	Sampling Method
Hydrogen Sulphide	Impinger / Titration
Methyl Mercaptan	Sampling Bag / G.C.
Total VOC's	Photo Ionization Detector

BiOWiSH™ - Odor Application

BiOWiSH™ - Odor was mixed into solution at 3.5oz to 26.4Gal or 1,000ppm (100gm to 100L of water) and the solution was sprayed to the surface of the fermentation tank. Samples were taken for measurement of Hydrogen Sulphide, Ammonia and Odor Values directly prior to treatment and at 10 and 40 minutes.

BiOWiSH™ - Odor

BiOWiSH™ - Odor is a revolutionary combination of human friendly active microbials, beneficial enzymes, super catalysing co-enzymes and co-factors.

BiOWiSH™ - Odor digests waste products, comprising of fats, protein, carbohydrates and cellulose that cause organic malodour. **BiOWiSH™ - Odor** has dual action (gaseous and substrate) and begins working within minutes.

BiOWiSH™ - Odor reacts bio-chemically with odor causing molecules, catalysing their transformation into smell-free non-toxic end products which are consumed into nature.

BiOWiSH™ - Odor does not mask the odor, it rapidly accelerates achievement of full decomposition by denaturing odor compounds to a fully oxidised state.

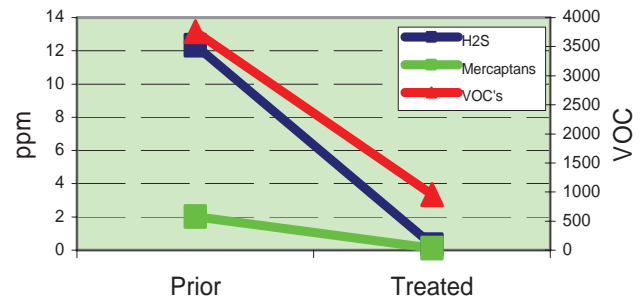
Packaging

- 3.5oz / 100g
- 2.2lb / 1kg
- 11lb / 5kg
- 22lb / 10kg



Results

Index	Prior to Treatment (ppm)	Treated with BiOWiSH™ - Odor (ppm)	% Reduction
Hydrogen Sulphide	12.330	0.319	97.4%
Methyl Mercaptan	2.01	0.12	94.0%
Total VOC's	3,756	956	74.5%



Benefits

1. Rapid removal of common odorous gases and full range of VOC's from municipal waste
2. Single application
3. Continuous action to suppress odor formation and reoccurrence
4. Automated dosing solutions available
5. Can be applied directly to waste stream or as airborne mist
6. Assists with decomposition and biogas production in digesters due to biological rate increase
7. Safe to use
8. Highly cost effective

Contacts

Client: Department of Public Cleaning of Bangkok Metropolitan Administration

Consultant: Environmental & Resource Development Co. Ltd
34/304-5Moo 5, Soi Watpaikheaw, Srongprapa Rd., Srkan, Don Muang, Bangkok
10210, tel: (662) 983-3045, 6 fax: (662) 983-3020

For an overview of the revolutionary BiOWiSH™ technology, please refer to our 'A Giant Leap in Biological Performance' fact sheet.

Instruction Guides

The following instruction guides are available to assist with the application of BiOWiSH™ - Odor in the solid waste management industry:

- Leachate Treatment
- Capped Landfills
- Newly Deposited Waste

Please contact one of our technical representatives for a full discussion on the benefits of using the BiOWiSH™ technology to assist with management of solid municipal waste.

Biological help for the human race



www.biowishtechnologies.com

BiOWiSH™ is a registered trademark of BiOWiSH Technologies Pty Limited

WMCSOD9MY03

BiOWiSH™

The World's most powerful Live Enzyme Technology