



Emissions Reduction Data

First-hand experience offers the best showcase of any odor control product; however, the following tests have been conducted to prove the effectiveness of Odor-Shell® and Posi-Shell® as well.

Test Results

Method	Product	Target Compounds	Emissions Reduction	Conducted By	Location	Date
Flux Chamber (Field)	Posi-Shell®	VOC's in Hazardous Waste	93%	Rowen Williams and Davies Inc.	Canada	Dec. 1997
Flux Chamber (Field)	Posi-Shell®	VOC's in MSW	97%	Trinity Consultants	Hong Kong	Oct. 2009
Flux Chamber (Field)	Posi-Shell®	VOC's in MSW*	75%	Hong Kong Polytechnic University	Hong Kong	Jul. 2010
Flux Chamber (Lab)	Posi-Shell®	Wastewater Biosolids	98%	CE Schmidt, Ph.D Environmental Consultant	California	Nov. 2013
Interscan (Field)	Odor-Shell®	Wastewater Biosolids	100%	Samsung Engineers	South Korea	Nov. 2013

*unprepared/unleveled working face



Flux Chamber – Testing Posi-Shell® for gas emissions. Dark area is wet Posi-Shell® used to seal device.



Interscan Device – Testing Odor-Shell® on freshly dumped biosolids.

For more information, customer references, or a quote for trial amount of product, call 800-800-7671.



Emissions Reduction Support Data Report Date: 07/24/14

Canada 1997	Test conducted over a period of 21 days. Two test areas were evaluated at 24 hours, 48 hours, 7 days, 14 days, and 21 days after application of Posi-Shell®. Samples tested for 30 target VOC's with 93% reduction in target VOC compared to baseline samples collected prior to application of Posi-Shell®. Posi-Shell® Long Term formulation used, applied at 5 ft ² per gallon.
Hong Kong 2009	Side by side comparison of emissions from 3 test areas: exposed waste, waste with leveled soil cover, and waste with leveled soil cover then coated with Posi-Shell®. Samples evaluated for 61 target compounds with Posi-Shell® demonstrating 97% reduction in emissions compared to the 2 controls. Posi-Shell® EC Formulation used, applied at 5 ft ² per gallon.
Hong Kong 2010	Two areas of fresh exposed waste were chosen and baseline emissions data was collected. These locations were then coated with Posi-Shell® to achieve 90 ± 5%* cover. Samples tested for 37 target compounds with Posi-Shell® demonstrating 75% reduction. Posi-Shell® EC Formulation used, applied at 8 ft ² per gallon. Resulted in 100% olfactory elimination of odor.
California 2013	Emission samples were collected in a lab setting and evaluated according to ASTM E-679-04 by certified lab. Samples evaluated for Detection Threshold with baseline levels collected prior to Posi-Shell® application. Post application sample collected immediately, at 24 hours, and at 7 days, with Posi-Shell® demonstrating 98% reduction in Detection Threshold compared to baseline sample. Posi-Shell® EC Formulation used, applied at 4 ft ² per gallon.
South Korea 2013	Baseline emissions collected from bare biosolids in a large municipal landfill. Odor-Shell® applied to each with six (6) readings recorded over 24 hours after application. Portable Interscan device used to record ppb H ₂ S emissions with Odor-Shell® demonstrating 100% reduction in H ₂ S emissions compared to baseline readings. Basic Odor-Shell® formulation used, applied at 8 ft ² per gallon.

*% cover based on many factors, including: surface smoothness, site access, surface contents, materials size, wind direction and speed, etc.

Glossary of Terms: **VOC** – Volatile Organic Compounds; **MSW** – Municipal Solid Waste; **Biosolids** – coagulated and collected waste sludge from the treatment of residential, industrial, or commercial users. Extreme olfactory levels.

For technical services or to locate your nearest Posi-Shell® or Odor-Shell® dealer:



Call: **1-800-800-7671** • Email: **Sales@LSCenv.com**

Visit LSC online at: **www.LSCenv.com**

LSC Environmental Products, LLC

2183 Pennsylvania Ave., Apalachin, NY 13732



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