



**Unconventional Solutions, Inc.**  
Partnering with Your Industry to Repair - Protect - Upgrade

July 2023

# Leading Edge

## Increasing biogas production from effective digester mixing

Operators at the Downers Grove (Illinois) Wastewater Treatment Center worked for four years with the vendor to repair the compressor on the gas recirculating mixing system in Primary Digester No. 1. The compressor ran, but it wouldn't move any gas.


### A Better Blend

The plant's general manager took a tour of self-sufficient Danish wastewater treatment plants and their equipment vendors. At the Landia factory in Denmark, he saw the externally mounted GasMix digester mixing system.

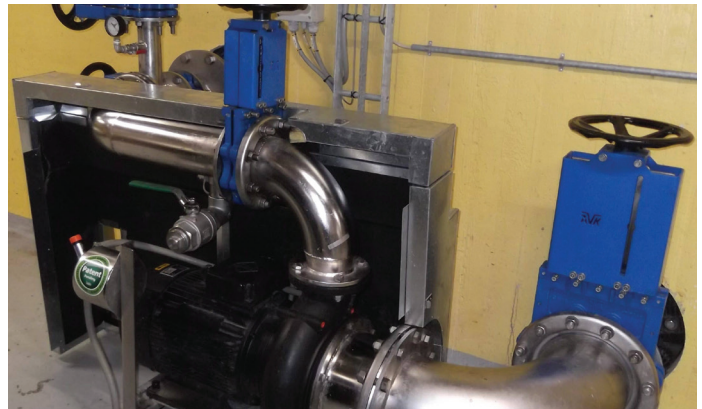
Compared to other technologies, the GasMix retrofit was more economical to purchase and install. In March 2017, Downers Grove became the first municipality in North America to operate a GasMix system. The plant provides primary settling followed by secondary treatment and ammonia removal using activated sludge, tertiary sand filtration and seasonal disinfection. The facility has three primary digesters and two secondary digesters. Digester gas is stored, treated and used in the combined heat and power facility.

Landia Inc. helped Downers Grove size the equipment for Digester No. 1, a 55-foot-diameter concrete cylinder with a cone bottom, a floating cover and a liquid volume of 460,000 gallons.

Compared to other types of digester solutions the Landia GasMix can easily be retrofitted, has a small foot print and is in a class of its own with regards to ease of service and maintenance. When it comes to Health & Safety, the Landia GasMix has completely eliminated the need of opening the digester for any kind of service. In other words no risk of biogas leaking from the digester, no need for the use of breathing apparatus etc.

The solution provided resulted in a 20% increase in biogas production and 10% increase in solids reduction, which in the end has the positive affect, that less sludge is produced. This means: reduced environmental foot print due to more biogas and less transport of sludge. 

ARTICLE REFERENCE: <https://stateofgreen.com/en/solutions/increasing-biogas-production-from-effective-digester-mixing/>



### INDUSTRY NEWS UPDATE



#### New Corrosion Inhibitor for Hydrotesting Drinking Water Systems

Cortec® is pleased to announce that its newest corrosion inhibitor for hydrostatic testing (i.e., hydrotesting) is certified to meet ANSI/NSF Standard 61 for use in hydrotesting of drinking water system components!\*

This opens exciting opportunities for those who fabricate, install, or service drinking water system components held to stringent safety requirements.

[www.usigroups.com/category/industry-news/](http://www.usigroups.com/category/industry-news/)

Keeping You in the Know Since 2002



## USI Dates to Remember

**OPEN July 3**

**Closed** - July 4. Have a Great Holiday!!

**July 18th**

**Chicagoland AMPP/CRCUC Summer Meeting**  
(Harrah's Joliet Hotel & Casino, Joliet)

**2023 SEMPPEs 33rd Annual Golf Outing** (Milford, MI)

**September 21**

**2023 SEMPPEs Ford Field Stadium Meeting**  
Dinner and Facility tour (Spaces limited)

WATCH INSTRUCTION VIDEO ON YOUTUBE

<https://youtu.be/6MCOXhHmyNk>



Peat Sorb Demo with  
Waste Oil and Diesel Fuel

## PRODUCT HIGHLIGHT



### Peat Sorb

Peat Sorb is a lightweight non-biodegradable natural organic absorbent made from 100% Canadian Sphagnum Peat Moss. Absorbs cleanly and completely on contact. Clean ups are exceptionally quick and easy. Absorbs hydrocarbons instantly on land and on water. Leaves no messy residue to clean up. Suitable for manual or mechanical cleanup.

- Non-Toxic
- Non-Hazardous
- Silica-Free
- Non-Abrasive
- Vapor Suppressive
- Non-Leaching
- EPA Approved
- Coast Guard Approved
- Michigan State University Tested



**Call us @ 248.735.7000 for a FREE demonstration.**

<https://www.usigroups.com/product/peat-sorb-5-liter-1-gallon-4-case/>

**AVAILABLE IN:**  
4' x 4" and 8' x 4" Sock  
and 5 Liter/1 Gallon



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Technical Support • Training • Troubleshooting  
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