

2015 WISCONSIN BIOGAS CONFERENCE

Panel Discussion #2

Incorporating Pre-Mixing and Feedstock Storage Tanks in
Digester Systems

HENRY PROBST
PRESIDENT, THE PROBST GROUP



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PRESIDENT, THE PROBST GROUP

- President & Co-Founder of The Probst Group
- More than 24 years of experience
(Wastewater engineer since 1991)
- B.S. in Environmental and Civil Engineering,
University of Wisconsin - Milwaukee





Successful implementation of numerous Anaerobic Reactors/Digesters with industrial clientele

- Dairy
- Food processing
- Aerobic WAS digestion
- Grease trap waste

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Use of Methane determined by what is best for each individual site

- Process Heating – BHX, Direct Steam Injection
- Co-Gen – Generator or Micro Turbines
- Blending for boiler use
- Pipeline quality – CNG
- Direct fired Chiller to meet new thermal limits on discharge?

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What we have learned in our endeavors...

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What we have learned in our endeavors...

- Control of timing and quality of feed is crucial to long-term, consistent success
 - Balance flow peaks
 - Balance loading rates
 - A consistent mixture of feedstocks has been ideal

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- What we have learned in our endeavors...
- Feedstock storage also allows us to provide effective pre-mixing.
- Aerobic WAS to digester without premixing proved problematic.



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What we have learned in our endeavors...

Feedstock storage also allows us to provide effective pre-mixing.

- After premixing WAS with raw HSW – foaming has been nonexistent and permeation rate has been very stable and notably improved



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What we have learned in our endeavors...

Feedstock storage also allows us to provide effective pre-mixing.

- Also allows us to effectively counter powerful sanitizers from raw HSW prior to impact at the digester.
 - This has been well documented at several of our operating sites over the years.
 - This is increasingly important as we encounter more durable and aggressive sanitizers in our target client group

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THANK YOU

The Probst Group is a water and wastewater engineering and consulting firm with unparalleled expertise serving its clientele in the dairy industry.

Our team of passionate engineers works closely with clients to implement innovative and reliable wastewater management solutions.

We endeavor to customize and develop every project from start to finish. From the design phase through operations and optimization, Probst is a trusted partner in wastewater management



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