



Meat processing plant to introduce new anaerobic digestion technology

Nicholas Meat LLC is installing a new wastewater treatment system and waste-to-energy technology to upgrade its management of liquid and solid wastes.

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[Edited by Adam Redling](#)

Nicholas Meat LLC, a beef processing and packaging company based in Loganton, Pennsylvania, announces it is installing a new wastewater treatment system and waste-to-energy technology to both upgrade its management of liquid and solid wastes generated in its facility and greatly improve the environmental and energy footprint of its operations.

The new facilities, soon to be under construction, will be engineered to better manage the factory wastewater on-site and recover energy from byproducts generated within both the production process and within the wastewater treatment operations themselves.

[Global Water & Energy \(GW&E\)](#), Austin, Texas, will provide the industrial wastewater treatment facility featuring its MEMBROXTM aerobic membrane bioreactor technology. GW&E will also provide the waste-to-energy technology to manage solid and concentrated wastes using its RAPTOR system. RAPTOR (RAPid Transformation of Organic Residues) is a pretreatment-enhanced form of anaerobic digestion designed to turn organic substances into valuable green energy in the form of biogas.

The MEMBROX wastewater treatment plant will allow Nicholas Meat to eliminate odors from the existing storage of wastewater and nearly eliminate the trucking of wastewater from the site, improving noise, dust and traffic at the facility. The process will generate an effluent of sufficient quality for stream discharge, as well as for a variety of potential reuse functions, such as irrigation and multiple forms of recycled water use within the factory footprint, which will reduce the impact on the local aquifer.

According to GW&E, the RAPTOR portion of the plant involves a twist on traditional anaerobic digestion, designed to maximize the energy generation from specific wastes.

“This world-class technology [...] produces both green energy to supplant fossil fuel needs as well as delivers high-quality treated wastewater to safeguard community water standards. The standards of environmental protection—and reduction of environmental footprint specified by Nicholas Meat—are a credit to the company as an efficient, sustainable and overall good corporate citizen,” GW&E Vice President Ian Page says.

“This installation presents a model for meat production and packaging plants globally,” Page says.

“Utilizing the residuals from production as a resource, rather than treating them as wastes, will generate significant value for the Nicholas Meat plant as well as the surrounding community, and will help to transform Nicholas Meat into a truly green company.”