

Food Digester

Background/Opportunity

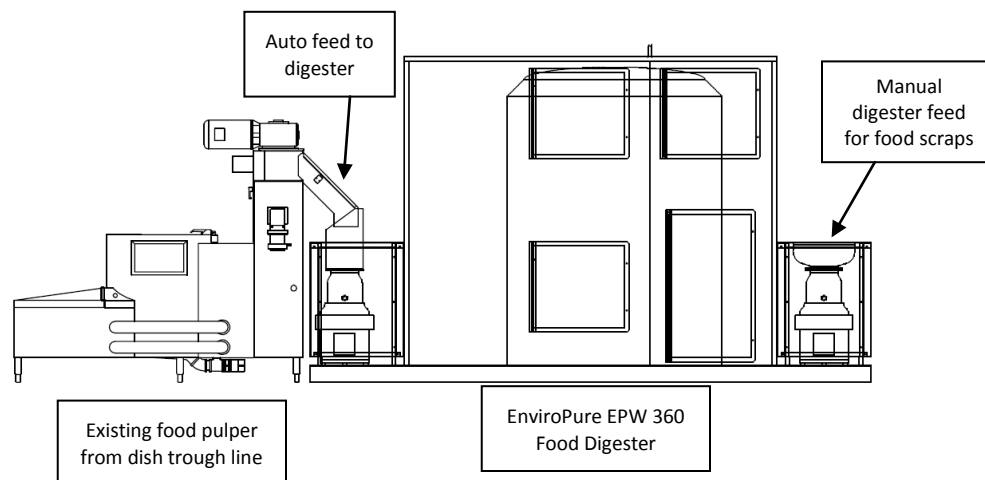
NorthShore Highland Park hospital (HPH) currently disposes of patient/retail food prep scrap/waste in solid waste bags or down the drain. When put down the drain, plumbing and municipal waste water district (MWRD) issues can arise due to elevated grease content and/or particulates/organics in the waste water stream. The solid waste bags (which can weigh upwards of 50 lbs each when full) are carted by food service staff multiple times/day and manually tossed into the solid waste compactor located at the dock. During the process, it is not uncommon for some waste to fall outside the waste compactor onto dock floor. Once in compactor, food waste will begin to decompose, creating odor and attracting vermin. Ultimately, the solid waste compactor is serviced at a cost by our waste hauler, transported to a landfill, and dumped.

Opportunities:

- Improve the safety and efficiency of food staff by reducing the handling of food waste.
- Improve sanitation, reduce fugitive odors from drains and compactor, and support integrated pest control efforts by reducing food waste disposal.
- Reduce waste disposal costs from waste hauler by reducing food waste placed into compactors (typically represents 25-30% of total solid waste compactor waste profile)
- Reduce the environmental impact by decreasing waste sent to landfill and associated greenhouse gas contributions.
- Reduces frequency needed to “rod” clogged drain pipes and potential for MWRD violations and waste water surcharges.

Recommendation

Procure and implement an EnviroPure EPW 360i Organic Waste Elimination Digester System in HPH lower level food kitchen. With this system, food waste/compostables (including vegetables, fruits, meat, fish, poultry, dairy products, bones, shells and pits, compostable serveware) are quickly reduced to a grey-water bi-product that is odor free and can be safely disposed of into our existing municipal waste water system. This system has been recommended based upon proven success from other large healthcare, hospitality organizations. It is recommended that this system be integrated with the food “pulper” currently used at HPH for maximum impact (see diagram below).



Cost/Benefit Analysis

Based upon purchase and install of one EnviroPure EPW 360i Organic Waste Elimination Digester System with integrated feed from pulper:

Cost Benefit Analysis					
EnviroPure EPW 360i Organic Waste Elimination Digester System					
	Investment	Operating Costs/yr	Savings/yr	TONS Diverted	Costs/Savings
Year 1 costs	\$ 41,350	\$ 4,200	\$ 18,960	150.00	\$ 14,760
Annual Costs	--	\$ 4,200	\$ 18,960	150.00	\$ 14,760
SIMPLE PAYBACK:					2.8 years

Projected 2.8 year simple payback. Annualized savings of \$14,760.

Other Benefits

- Improve employee safety and efficiency by eliminating the lifting/carrying of heavy food waste bags (can exceed 50 lbs in weight).
- Improve kitchen sanitation, reduce fugitive odors at drains and waste compactor, and minimize vermin.
- Reduce the environmental impact by decreasing waste sent to landfill and associated greenhouse gas contributions (projected 150 tons organic waste diverted annually).
- Reduce frequency needed to “rod” clogged drain pipes and potential for MWRD violations and waste water surcharges.

Attachments

- Equipment Quote
- Equipment Specifications