PCA/Lancaster Installs Wastewater Treatment System

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The conversion of wastewater treatment equipment undertaken at Packaging Corporation of America’s Lancaster, PA facility is paying handsome dividends for the company, the boxmaker reports. PCA/Lancaster had been equipped with a physical/chemical treatment process leading to a rotary vacuum filtering system. With the old system in need of more than $5,000 in repairs, company officials elected to consider alternative methods.

Additionally, the company was concerned with the labor-intensive nature and high operating costs of the old system, which averaged more than $25,000 in chemicals annually. Kenosha, Wisconsin-based Beckart Environmental, Inc. was called on to assess the system. A Beckart representative arranged an analysis of typical levels of suspended solids, inks, heavy metals, and BOD generated by PCA/Lancaster’s operation, and recommended replacement with a Hy-Pack recessed plate filter press.

PCA/Lancaster decided on a 7 cu. ft. Hy-Pack system, which is expandable to 12 cu. ft. to accommodate future plant process changes or wastestream composition. The plant currently processes flexographic inks and adhesives, as well as flexo glue and label glue overflow. While this facility does not currently use coaters, the firm is satisfied that their potential future addition can be handled by the Beckart equipment. Such a configuration is already in place at another PCA facility.

Beckart technicians completed the conversion over a single weekend, resulting in negligible production downtime. In addition to the replacement of the existing vacuum pump system and associated piping and hardware, the job entailed a modification of control functions. The existing computer and control panel were reprogrammed and rewired to suit the new unit’s PLC-controlled auto-advance, auto-closure, and other features. PCA/Lancaster estimated that yearly chemical costs with the new system will drop from $25,000 to $8,000, with an improvement in solids retention from 20% to 40%. Also expected is an additional $3,000 in annual waste disposal fee savings, and an estimated payback of less than 18 months.