ConAgra Foods: Conserving Water Three Ways Over Ten Weeks

A ConAgra Foods facility in Macon, Missouri, identified three ways to reduce the wastewater volume in a short time and within a limited budget.

The wastewater pretreatment system for the Macon, Missouri facility was at its hydraulic design capacity and a quick response to production increase was needed. New production capacity was being considered but the capital expense and time delay of pretreatment expansion was not attractive. The plant formed a multi department team to investigate water use reductions.

A team of key players from each plant department was formed to identify immediate water savings opportunities. Discussions were held at staff meetings and shift review meetings to gather ideas and define action items. Work is continuing to identify and implement further projects through the team approach. Past presentations that demonstrated the effectiveness of cooling water reductions influenced the team to evaluate these uses.

Three immediately effective opportunities were identified that would require minimal cost and time to execute:

- Vacuum pump seal water optimization
- Formax hydraulic fluid cooling water optimization
- High Pressure pump seal water reclaim

The three projects were developed, planned, and completed over the holiday shutdown in December 2004. The improvements reduced water use by 12 percent at minimal capital cost, for an estimated total cost savings of $49,385 (USD) per year while meeting expanded production needs.