



## Food & Beverage



### **BENEFITS**

- ▶ Elimination of problems with steam trap reliability
- ▶ 30% reduction in condensate temperature
- ▶ Short payback of 6 months
- ▶ Greater condensate volume returned to Energy Centre
- ▶ Identification of unnecessary system components

### ***GEM® Trap Retrofit at Cereal Plant***

Sixty-five percent of the steam traps at the facility have now been converted to GEM Traps, providing a payback of just six months.

At the 80-acre site, steam is vital for a variety of applications including heating, cooking and cleaning. For a number of years, however, the facility had been experiencing sporadic problems with steam traps which appeared to be caused by trap corrosion. The plant manager invited Thermal Energy International (TEI) to look at one area of the site to determine how to improve steam trap reliability.

After completing a review of the system, TEI engineers discovered that the condensate return temperature in certain areas was up to 284°F. Management agreed to a trial and replaced mechanical traps with GEM Traps. As a result, the condensate return temperature dropped to below 212°F. Following the successful trial, the facility's staff verified the system for an additional six months to assess the reliability of GEM Traps to perform without any changes to the steam distribution network. During that time TEI identified that an Ogdan pump, used to return condensate, was no longer necessary and could be bypassed.

***"There were no issues with the traps and our process control systems never missed a beat. This leads us to consider other areas that would benefit from conversion to GEM Traps. Since this conversion, we have seen a marked improvement in the volume of condensate being returned to the Energy Centre and we have not needed to replace any of the GEM Traps."***

- Business Engineering Manager

