

Case Study: PARMALAT



The Company:

Parmalat Canada produces dairy products and fruit juices under a number of different brands. Its Brampton location is a major consumer of water in Peel. Between January 2005 and April 2007, Parmalat used, on average, 1,303 m³/day of water. During the 2007 monitoring period, the site used slightly less – approximately 1,190 m³/day.

Parmalat was the first facility in Peel to successfully participate in the Indoor Water Audit program.

Water Savings Solutions:

1. Installed steam traps

Steam is used in five carton filling stations to prevent production contamination. To prevent fogging around the filling stations, municipal water was added to the steam. Now, five steam traps have been installed to capture all that steam to prevent fogging.

2. Reused discharged steam

During milk processing, steam is condensed and removed from product. The resulting water is now reused and replaces some municipal water currently used for case washing.

3. Reused once-through cooling water

Certain equipment uses hydraulic oil that must be cooled to function properly. Previously, the oil was cooled with once-through cooling (municipal water). Now, this discharged cooling water is piped to a water recovery tank for case washing.

During equipment sterilization, municipal water is used to prevent steam from flashing. Previously, the steam was cooled with once-through cooling (municipal water). Now, this discharged water is piped to a water recovery tank for case washing.

Economic Benefits

\$87,552 annually based on water reducing measures, plus a one-time Peel rebate of \$17,825, which reduces the payback period to 2.7 months.

Water Savings:

69,763 m³ of water annually or 191.131 m³/day

| Water Reducing Measures | Cost of Implementation | Cost Savings (Rebate) | Water Savings (L/day) | Annual Savings |
|-------------------------|------------------------|-----------------------|-----------------------|-----------------|
| Steam Traps | \$9,415 | \$4,708 | 144,000 | \$65,963 |
| Discharged Steam | \$12,600 | \$6,300 | 19,488 | \$8,926 |
| Once Through Cooling | \$13,635 | \$6,817 | 27,643 | \$12,663 |
| Total | \$35,650 | \$17,825 | 191,131 | \$87,552 |

This is an excellent example of how business and government can work together for everyone's benefit.

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