

# Water Usage Monitoring and Chemical Feed Optimization using Carlon Car-Logger Technology

## CUSTOMER OVERVIEW

**Segment:** Pharmaceutical

**Products:** Over-the-counter Medication

**Plant Summary:** 8 Cooling Towers, 11 Boilers

**Location:** Midwest, United States

## PROBLEM SUMMARY

The customer has one large manufacturing campus with four separate manufacturing plants. The campus includes eight cooling tower systems and eleven boilers. Because of the large number of systems, makeup water usage was not monitored prior to ChemTreat taking over the water treatment.

## CUSTOMER OBJECTIVES

- Monitor water usage to each system
- Proportion chemical feed to makeup flow rate
- Send flow data to building control system for data analysis and troubleshooting



## CHEMTREAT SOLUTION

Working closely with Carlon Meter, ChemTreat installed positive displacement water meters (JSJ model) on all of the boiler and cooling tower systems and the closed loop systems. In conjunction with the water meters, ChemTreat utilized Carlon's new Car-Logger to assist in displaying and transmitting the flow signals.

The Car-Logger displays instantaneous flow rate in addition to the totalized flow rate, which is very helpful for troubleshooting the systems. The display unit also processes the flow signal and transmits up to three separate signals (two digital outputs plus one 4-20mA analog output).

The analog signal is transmitted to the building control system for monitoring. One of the digital outputs is used by the chemical feed system to proportion the chemical feed.

## CUSTOMER BENEFITS

The plant operators are now able to quickly diagnose water-related issues (faulty makeup or blowdown valves, tower level control issues, etc). The use of the water meters and Car-Logger displays have been extremely valuable in diagnosing water losses from the closed loop systems.

The implementation of this technology has saved water, chemical and fuel consumption and also prevented costly product contamination in several instances.



## CONCLUSION

Utilizing Carlon water meters and Car-Logger display units along with ChemTreat's water treatment experience has saved this customer tens of thousands of dollars annually. The use of this equipment is simple to implement and results in reduced operational costs.