

APPLICATION NOTE

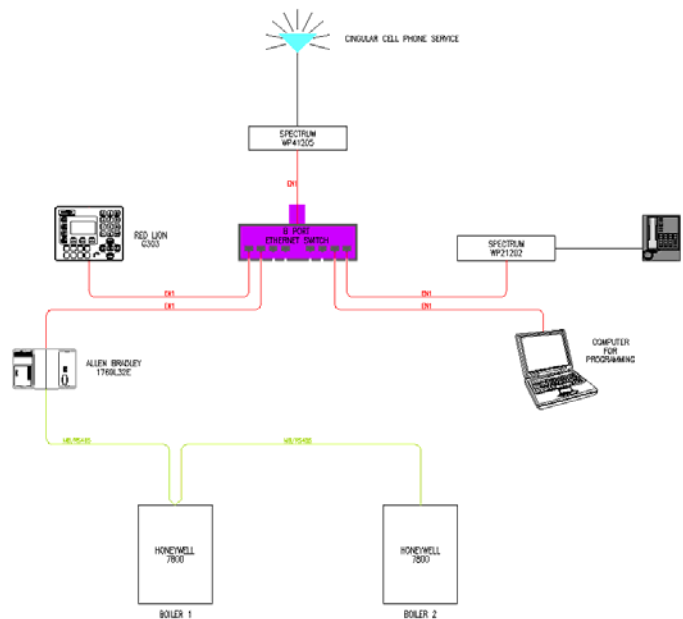
# Remote Boiler Control System Eliminates Boiler Disasters Before They Happen



A leading manufacturer of small snack cakes and bakery goods has found a solution to their remote boiler control needs with the help of Spectrum Controls' WebPort product line. WebPort offers multiple remote connectivity options that include a PSTN modem connection, a GSM/GPRS modem connection, or a broadband internet connection. In this example the manufacturer was able to utilize the WebPort's PSTN and GSM/GPRS modem options to notify maintenance personnel of current alarm conditions and give them the ability to shut down the boiler remotely, using either a land line or cellular phone. With this ability the manufacturer was able to satisfy state

regulations which mandate that boiler systems be monitored during operation by plant personnel. Since the WebPort allowed maintenance people to monitor and control the boiler remotely, there was no need to have personnel on site around the clock. This translated to a significant cost savings for the manufacturer and allowed them to run more efficiently and with a smaller maintenance crew.

The system utilizes two WebPorts, a WebPort 4001 with a GSM/GPRS modem, and a WebPort 2001 with a PSTN modem. The diagram below describes the system in its entirety. The Allen-Bradley CompactLogix controller communicates to each WebPort over EtherNet/IP. Each WebPort monitors critical alarms from the PLC such as a loss of communication, high steam pressure alarms and many more. When each alarm is detected, a SMS text message is sent to a group of cell phones and pagers. Each operator carrying the cell phone and/or pager, are notified of the alarm condition and can respond via a text message from their cell phone or by calling a number using a landline phone. When one of the WebPorts receives the reply, it will shut the malfunctioning boiler down to eliminate possible dangers. Once the boiler is shut down, the operator can safely proceed to the boiler site and begin diagnostics using the WebPort. The operator can review the alarm history, events and historical data logs to determine the source of the failure.



With the large feature set available from the WebPort product line, it's easy to see the many benefits that can be made for remote maintenance applications.

Don't let your application catch you by surprise. Let WebPort notify you in real time, as events happen, and avoid disaster.