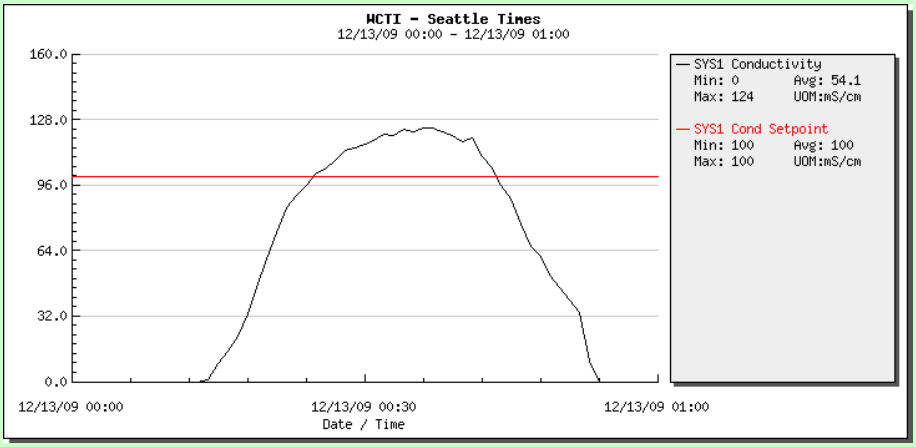
High Efficiency Softening (HES)

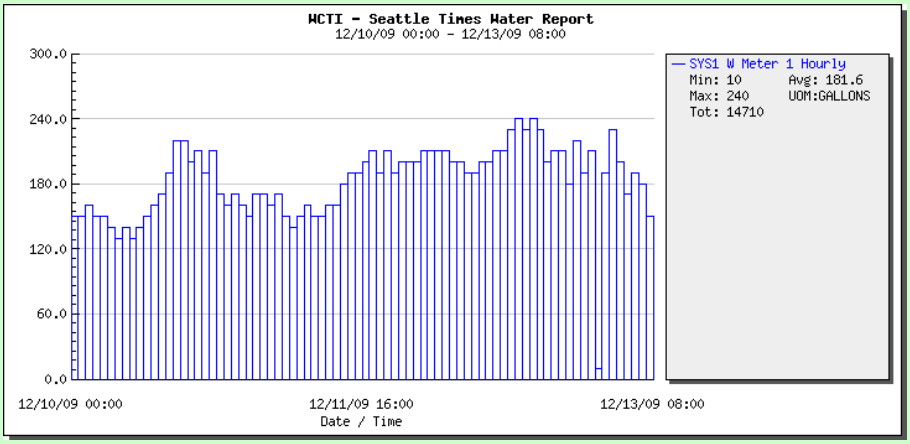
Regeneration Performance Analysis (RPA)

On Line Monitoring

- **Automated data transfer; Ethernet, line or wireless options**



- **On line monitoring of each HES regeneration, failure alarm**



- **On line makeup water flow monitoring, control verification**

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RPA System Description

The RPA system is designed to provide online monitoring of the regeneration process for WCTI High Efficiency Softener (HES) equipment. The RPA system uses state of the art online communication and software to monitor conductivity throughout the regeneration and will send an alarm to service staff in the event of a failure that will lead to short service runs and hardness leakage. The RPA system eliminates hours of time required to perform just one traditional elution study, and permits analysis of every regeneration to insure reliability and enable performance optimization. RPA includes on-line monitoring of the critical HES reliability functions 1) regeneration brine strength, 2) metered flow, and 3) control power loss.

Automated Regeneration Performance Analysis, Metered Flow and Power Monitoring:

The WCTI RPA system will permit central monitoring of the change in conductance throughout the HES regeneration process to provide proactive performance analysis and assurance of reliable operation. The system provides an alarm communication when a pre-set minimum conductivity level is not achieved during the regeneration process that will permit proactive corrective action. This system includes controller, sensor, data logging and data transfer functions. The sensor is specifically designed for inline (fouling resistant) conductivity measurement of high TDS water.

The data is transferred and logged on a data server for continuous access of history and analysis. The system provides automated remote data transfer using Ethernet, dedicated line or wireless data card options. Data management / tracking software is provided with the central server for performance analysis and download. The HES built in service flow control water meter data is also input into the controller for transfer to the central server for operational monitoring and analysis. Loss of power and other monitoring and alarm functions are also provided. Ethernet wiring, phone line or wireless service from the remote controller is not provided.

MegaTron unit

MegaTron SS makes RPA continuous monitoring and control of the HES softeners systems easy with a user friendly ATM style menu and a large 16 line full graphic display that allows complete programming from the keypad. Using a simple system approach, each MegaTron SS can be specifically configured with the functions RPA applications require.

Web Advantage

- Allows *staying connected to all your on-line MegaTron units at one time by Internet*.
- Uses the latest, reliable and secure server technology for connection, control and history management.
- Email alerts from Web Advantage keep users informed of *any alarm conditions*, including disconnection and power loss encountered by the remote MegaTron.
- Constant Server Monitoring, Server Stored History, No Software Needed

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