

SAMPLING SYSTEMS

for Water & Steam

**Solutions for the Most
Demanding Applications**



**Accurate Results
to Save You Time
and Money**



www.sentry-equip.com

NUCLEAR APPLICATIONS

Primary, Secondary, Post Accident Sampling with Safety in Mind

- Conditioning components and sensors located within fume hood with sliding doors and ventilation protects operator from fumes.
- Post accident sample system with mimic panel to enable extraction of samples such as cycle water, circulating water and containment air during post accident situations.
- At right is a large system of interconnected fume hoods with sliding glass doors. Face velocity of each hood is monitored. A sample selection patch panel is located within the hood. This system was designed to be recessed into a wall as a structural member.



CUSTOM CHEMICAL FEED SYSTEMS

Optimized Water Chemistry with a Sentry-Designed Chemical Feed System

- Often thought of as an extension of the sampling system, the chemical feed systems will control the chemistry of the cycle or circulating water system. The control can be manual or automatic from analysis emanating from the sample system.
- A variety of tank materials, pumps and components and pipe or tube materials will be integrated to suit each particular application with any degree of automation. Skids can be installed inside equipment shelters and can also provide containment as circumstances require.
- Many years of trouble-free operation.





In the power generation industry, increased emphasis on water chemistry control requires that a well designed, high-quality sample conditioning and analysis system be

used to assure both representative and accurate analysis.

Sentry leads the way in meeting these needs by combining over 80 years of experience in sample conditioning with state-of-the-art water chemistry instrumentation.

Our standards are their custom

- User friendly design for analyzers and sensors provides easy front access to analyzer cells and resin columns; design simplifies calibration and maintenance
- Modular stainless steel back plates eliminate corrosion problems
- Modular plates allow for easy upgrades in the future



SAMPLE PANELS

Standard Sample Panel

- All sample conditioning components are made in-house.
- All designs are based on EPRI guidelines which call for minimizing or eliminating temperature and flow swings.
- 304 stainless steel conditioning section eliminates corrosion problems associated with painted carbon steel panels.
- 304 stainless steel sink with large work-shelf for operator convenience.
- Sensors mounted on front of panel over sink for ease of calibration and maintenance.
- Recessed wireway located along front of panel with SS cover plate to simplify probe replacement.
- Easy access to resin columns reduces refill time.

Optional Features for Custom Solutions

- Sample sequencing to reduce the number of required analyzers.
- Thermal shut-off valve to protect operator and instrumentation should the sample outlet temperature be too high.
- High pressure blowdown with optional flash tank cooling.
- Recovery pump and tank to recover samples.
- Sludge traps or filters to collect impurities.
- Temperature Control Units for precise 77°F (25°C) sample.
- Cooling water isolation skirts to prevent poor quality cooling water from plugging sampling components.
- Cooling water mixing skirts to achieve precise temperature control without refrigeration when clean, cool water is available.
- Totally automated system to minimize startup time while reducing manpower requirements.



high pressure blowdown



sample recovery system



sludge traps

Here's what some of our customers are saying...

"Sentry has been very professional in accommodating our needs. We required a custom designed sampling system to fit into a very restrictive and specific location.

Their staff knowledge, experience and responsiveness towards a solution paid off with the system performing just as needed. It's been a pleasure working with them and I'm confident that I'll continue to receive superior support from Sentry."

*Russell Fackler, Plant McDonough
Chemistry Team, Smyrna, GA*

"Sentry's steam and water sampling equipment has proven to be of high quality with excellent performance. Our station has been operating since 1999 and Sentry's expertise in the field and long-term service support for their equipment has been a great value to our maintenance team."

*Charalambos Pericleous, Assistant
Station Manager, Vasilikos Power
Station, Cyprus*

"I'm very satisfied with our Sentry steam and water sampling system's quality and its ease of operation along with the responsiveness of the entire Sentry Equipment staff. By listening to my needs and applying their technical expertise, Sentry has supplied a superior solution at a competitive price."

*Jim Saunders, Chief Chemist, AEP
Resources Inc; Clinch River Power
Plant; Cleveland, VA*

SHELTERS

Customized Shelters for Every Application

- A growing number of power plants are being developed with open construction. Often a method of protection for the sampling and chemical feed system is requested. From simple sun and rain protection to heavy snow, wind or seismic protection, we have a shelter to suit your environment.
- Lab facilities can be incorporated to offset the costs of a lab room within the plant. A variety of colors, construction methods, and accessories are available for a seamless fit into the plant facility.



SENTRY EQUIPMENT CORP

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