

Power and Water Solutions PWS



Emerson Process Management

Measurement and Analytical

- Rosemount
- Saab Rosemount
- Micro Motion
- Brooks
- Rosemount Analytical
- Daniel

Final Control Elements

- Fisher Valves
- Fisher Regulators
- Valve Automation
 - Bettis
 - Dantorque
 - El-O-Matic
 - Hytork
 - Shafer

Systems and Solutions

- Process Systems
- Process Solutions
- Power & Water Solutions (PWS)

Asset Optimization

- Asset Optimization Services
- MDC Technology
- CSI

A Proud History in the Power Industry

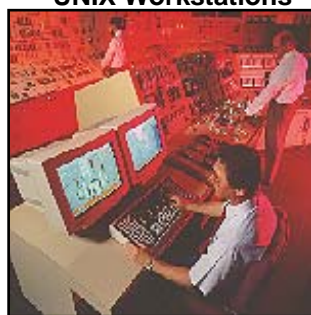
Westinghouse PRODAC --
First Digital Computer Control



Westinghouse P250, P2000,
W2500 & 7300 Systems



WDPF//
UNIX Workstations



Ovation Control and
Information System



Ovation Windows
SmartProcess



1959

1963

1967 - 1980

1982

1992

1997

1998

2001

2002

2003



Westinghouse P50 --
First Mini-computer



WDPF Distributed Control
& Information System



Acquired By Emerson
Named Power Industry Center
of Excellence for Emerson



Ovation
PlantWeb
with AMS
Inside



Ovation Fleet
Management Edition
Ovation Foundation
Fieldbus

PWS Boiler Control Capabilities

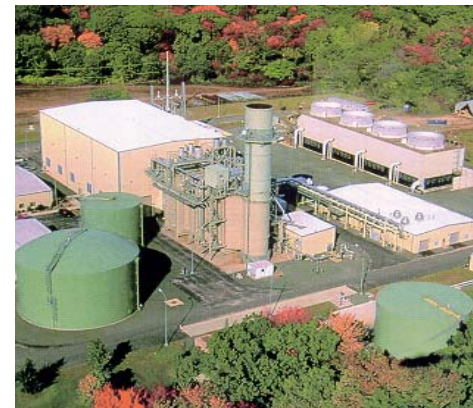
- More than 3000 systems installed worldwide of which 1000 include Boiler Controls
- Experience with all manufactures and all boiler types
 - Babcock & Wilcox, ABB/Combustion Engineering, Foster Wheeler, Pyropower, Riley, Zurn
- Complete coordinated control of all sub-systems within a Power Plant
- Average Ovation Design engineer has over 15 years of power experience



PWS Turbine control experience

- Main steam turbines
- Boiler feed pump turbines
- Combustion turbines
 - Single unit simple cycle
 - Multi-unit simple cycle sites
 - Combined cycle units
- Wide Experience with Gas and Steam turbines

**Over 780 WDPF & Ovation Turbine
Control Systems Installed**



PWS Combined-cycle applications

- Power and Water Solutions has developed projects for 1x1, 2x1, & 3x1 in conjunction with EPC providers
 - Black & Veatch
 - GE Power Systems
 - Raytheon
 - Sargent & Lundy
 - MHI



PWS recent retrofit experience

- General Electric
 - 15 Main Steam Turbines
 - 8 Boiler Feed Pumps
 - 70 Gas Turbines
- Siemens Westinghouse
 - 85 Main Steam Turbines
 - 18 Boiler Feed Pumps
 - 50 Gas Turbines
- Retrofit consultants to advice and guide user on the procedure and identify critical areas
 - System Life Planning
 - Smooth and Bumpless Cutover



PWS Advanced Process Control

Smart Process - Plant Optimization Software

*A New Suite of Process
Optimization & Advanced Control
Products Designed to Improve
Plant Performance
& Reduce Operating Costs*

Get the most out your plant!