



PEMS ProLogix 60™

PREDICTIVE EMISSIONS MONITORING SYSTEMS FOR PS-16 SOURCES
UNDER EPA 40 CFR 60 APPENDIX B & 40 CFR 75 SUB PART E

BOILERS | TURBINES | OIL & GAS SOURCES

PEMS ProLogix 60™

Predictive Emissions Monitoring for PS-16 Compliance & Process Measurements

Predictive Emissions Monitoring for EPA PS-16 Compliance at Oil and Natural Gas Sources

PEMS ProLogix 60™ is a full-featured, predictive emissions monitoring software system. Owners of approved 40 CFR Part 60 sources can use PEMS to predict emissions after meeting EPA PS-16 audit standards for compliance with 40 CFR Part 60 Appendix B regulations for monitoring nitrogen oxides (NOx) and oxygen (O2) at industrial sources.

PEMS ProLogix 60™ uses a statistical hybrid model to provide real-time emissions predictions from a wide range of operating input parameters with CEMS-level accuracy and reliability.

TYPICAL PEMS PARAMETERS

- OXYGEN
- FUEL FLOW
- STEAM LOAD
- COMBUSTION AIR FLOW
- BOILER MOISTURE
- FLUE GAS TEMP
- PROCESS O2
- AMBIENT TEMP
- BAROMETRIC PRESSURE



Polling Computer

PEMS ProLogix 60™ calculates criteria pollutant emissions with CEMS-level accuracy, eliminating cal gas inventory and hardware maintenance, lowering operating costs and increasing reliability.

PEMS ProLogix 60™ delivers real time results over your Ethernet/IP networks for the highest system visibility available.

Open Architecture. HMI>Network Interface.

Our open architecture PEMS ProLogix 60™ data acquisition and reporting software, through its HMI>Network Interface™ and Allen-Bradley® PLC platform, provides network connectivity and remote operation.

Real Time & Historical Displays. PEMS Reporting Suite.

PEMS ProLogix 60™ features real time and historical trend charts to allow monitoring of emissions and process parameters. When configured with AMP-Cherokee's ProLogix Data Acquisition and Reporting (DAS) product, the Airpro PEMS module provides Part 60 compliant emissions reporting, including daily calibrations, emissions reporting, and rolling averages.



Controller Variables

- NOx concentrations in ppm
- O2 concentrations in %
- CO2 concentrations in % (MP Boiler Only)
- NOx mass emission rates in lb/hr
- Digital signal output/input for troubleshooting
- Pertinent system parameters

PEMS Remote Operation. Alarms and Notification.

PEMS ProLogix 60™ monitors system health status. Email alarms - critical and noncritical - can be configured across your monitoring network. Remote access provides administration level operation controls and troubleshooting tools to locate PEMS faults.

Process Input Sensor Validation & Error Correction

From source data collected during process characterization, the PEMS ProLogix 60™ provides dynamic process sensor validation, along with data acquisition functions such as startup, shutdown, and other historical events.

Data Redundancy. Data Distribution.

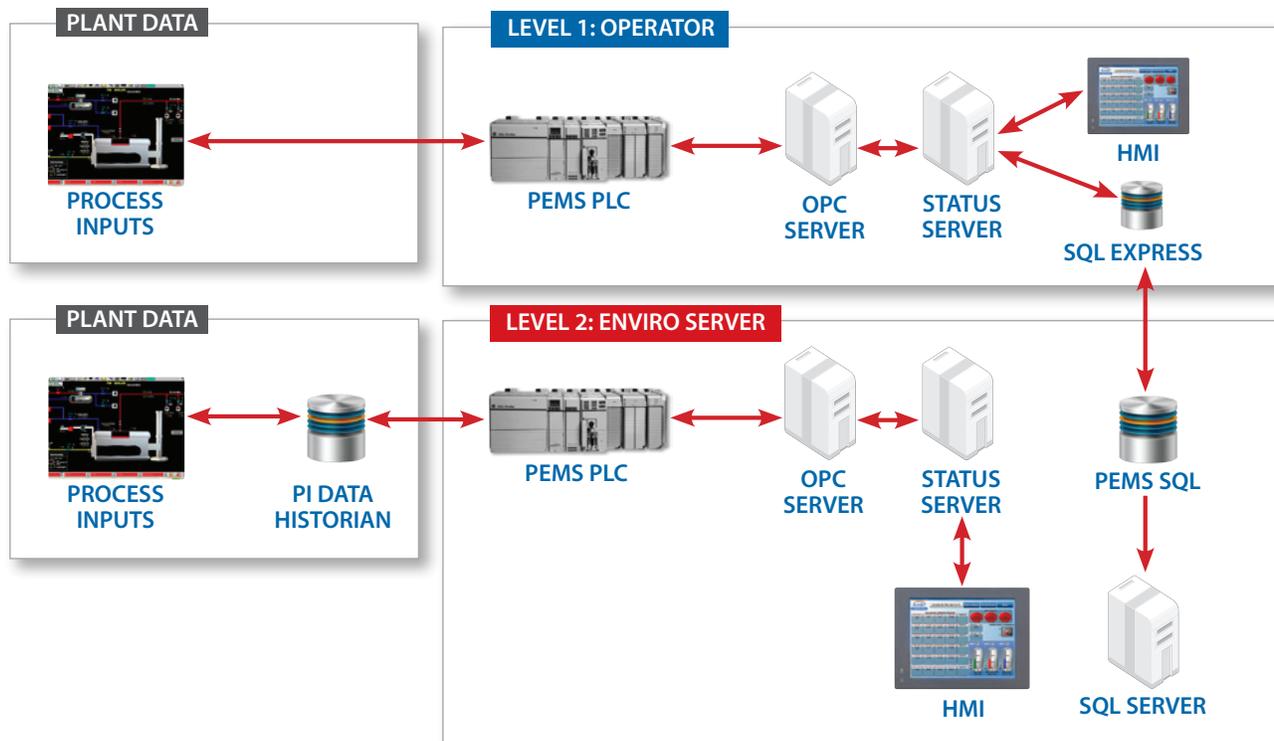
With PEMS ProLogix 60™, data redundancy is provided at the PLC and polling computer prior to distribution to Ethernet/IP-based networks. Any data transfers that are interrupted by network disconnections are automatically restored to all servers.

AMP-Cherokee offers PEMS data monitoring and on-site maintenance plans that include RATA and quarterly RAA tests for maximum system reliability and optimal cost effectiveness.



PEMS ProLogix 60™ provides monitoring for emissions compliance and process measurements for PS-16 sources under 40 CFR 60 Appendix B and 40 CFR 75 Sub Part E.

PEMS ProLogix 60™ HMI Schematic



A Pedigree PEMS

At the Oak Ridge National Labs, the original CEMS was replaced with PEMS ProLogix 60™ according to EPA's recently promulgated PS-16 monitoring requirements for all 40 CFR 75 Subpart E and 40 CFR 60 Appendix B sources.



Oil/Gas-Fired Steam Operations

As the operations management contractor for steam generation at a nonwoven fabrics plant in central Tennessee, Constellation Energy selected PEMS ProLogix 60™ for emissions monitoring of their three (3) dual-fuel industrial steam boilers.

PEMS ProLogix 60 SYSTEM



SOFTWARE

PEMS ProLogix / Status Server
Kepware OPC Server
Reportworx-LITE
ProLogix P60™ PEMS V3 Software License
Microsoft SQL Express
SOLA UPSMon

POLLING COMPUTER (minimum specification)

Dell Poweredge R430 Server
Rack Server, Rack Mount
Intel XEON Processor
48Gb RAM
(2) 1Tb RAID1 HDs
Windows Server 2012 R2
USB Keyboard and Mouse
22-inch Flat Screen Monitor
3 Year Basic Hardware and Limited Site Warranty



PEMS CONTROLLER

PLC

CompactLogix EtherNet Processor w/ 2M Memory

PANEL PC

OS: Windows7 Pro 64bit
Display: 15" Touch Screen
Integrated CPU: Intel i3-3110M 2.4GHz
Memory: 8GB RAM
Storage: 500GB SATA Hard drive RAID 1 Configuration

ENCLOSURE

Hubbell-Wiegmann NEMA 4/12/13
- 30 x 24 x 8 inch (HxWxD)
- Wall mountable
- ANSI 61 gray light-textured finish, single-door
- 1/4-turn semi-flush oil-tight latch
- SOLA HD Offline UPS 500VA

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