Instrumentation and control products for power plant projects…Coal and Gas Fired
From the Coal...
Coal Delivery, Storage & Handling: Unloaders, Stack/Reclaim, Belt Lines, Bunkers

Car Position: Banner Photoelectric Eyes, Turck Proximity Switches
Coal in Bunkers, on Belts, in Transfer Chutes & Sampler Buckets:
Siemens-Milltronics LR560 Radar and LUT400 Ultrasonics, Thermo Scientific PNF Point Levels and LevelPro Continuous level (formerly TN Technologies)
Tripper/Dumper Car Position: Laser Gage, Turck, Banner
Motor Load, Speed, Winding & Bearing Temperature: Moore Industries RTI1 and RTI3, Smart Sensors, AI-Tech Speed Monitors
Unloader Cab Console Process Display and Annunciation: PD158 – Precision Digital Process Displays, Precision Digital PD6000,
Interface Relays for Controls - Releco Relays
Motor and Bucket Wheel Speed Measurement Systems- AI-Tek (Airpax)
Methane & CO Monitors, and Flame Detection: MSA Ultima X and X5000,
MSA MSIR Flamegard 5 – Fenwal
Pressure Sensors for Hydraulic Oil and Water: ITT NeoDyn, Siemens DSIII
Flowmeters for Service Water: GF Signet 2551, Siemens Mag 5100
Belts Alignment & Zero Speed Switches: Siemens MFA4P – Turck, Banner, EEC
Belt Weigh Scales: Siemens-Milltronics MSI/MMI
Wireless I/O and Gateways: Elpro 905U, Elpro 905U-G, Banner, Oleumtech

Coal Feeders/Pulverizers/Combustion

Coal in Feeder Pipes: Siemens LR560 Radar, Thermo Scientific PNF Point Level, Banner Photoelectrics
Pulverizer Gate Valve Position: Turck Proximity Switches
Motor Load, Winding & Bearing Temperature, Moore Industries RTI1 and RTI3, Smart Sensors
Interface Relays For Controls: Turck Releco Relays
Data Acquisition Systems for Temperature, Load, etc:
Gilson GR PR Series
Air Flow Transmitters: FCI ST100, Comate Vortex, DPs for Venturis DSIII, Veris Verabar and Veris Accelabar
Air Temperature Sensors & Transmitters: Moore Industries RTI1, RTI2 RTI3, Smart Sensors
Primary Valves and Manifold Valves for Pressure & D/P Cells: Siemens
Fire Detection via CO Detection: MSA Ultima X

FD & ID Fans & Motors
Motor Load, Winding & Bearing Temperature: Moore Industries RTI3 & RTI4, Smart Sensors
Motor Speed Measurement Systems: AI-Tek
Vibration Monitor Output Signal Conditioning: Moore Industries, Banner Engineering

Boilers: Fire Box, Drum, Heater/Deareators, Condenser, Oil Lighters, Soot Blowers
Pressure Measurement in Boiler, Drum or Heater: Siemens DSIII
Boiler Tube Temperature Sensors: Smart Sensors
Flame, Water & Steam Temperature Sensors: Smart Sensors
Data Acquisition Systems: Gilson GR PR
Drum and Heater Level Indication/Control/Tripping: Siemens DSIII, Questtec LT210 and Quest-tec LT220, Quest-tec LT300
Soot Blower Position Sensors: Turck, ITT NeoDyn
Oil Lighter Flow Measurement and Totalization: Siemens, UFM MN Series Vane Style Meters, Turbines Inc TM Series, MacNaught Positive Displacement MX Series
Pressure Regulators - Jordan Valve Mark 60 Valve Positioners: Siemens 760 and Siemens PS2
To the steam...

**Water : Intakes, Cooling Towers, Filter/Demineralizers, Discharge**


**Turbine/Generator Area**


**Flue Gas & Ash Handling (also see FGD, SCR & Stack sections)**


**SCR Systems**

To the stack...

FGD/Scrubber Systems

Lime Silo & Bin Levels: Siemens LR560
Plugged Chute Detection: Thermo PNF
Lime Slurry Level Measurement: Siemens Probe LR Radar and Sonics LUT400
Slurry Density Gages: Thermo Density Pro, Non-Nuke Rhosonics
Absorber pH Measurement: ECD S80 and T80 pH
Slurry Temperature Sensors/Transmitters: Moore Industries RTI-1 and RTI-2
Slurry and Makeup Water Flowmeters: Signet 2551 mags, Siemens 3100 Mag
Flow Controllers: Moore Industries 535 Controller
Slurry Density: Non-Nuke Rhosonics and Thermo Density Pro
Pump Motor Bearing & Winding Monitoring: Moore Industries
Sulfur Dioxide Gas Detectors – MSA Ultima X

Stacks

CEM Data Transmitters: Moore Industries ECT, Elpro Technologies Wireless 905U and 905U-G Gateways
Stack Temperature Profiling and Flow Verification: Moore Industries THZ3/TDZ3
Stack Gas Mass Flow: FCI MT100
CEM Backup Recorders: Gilson Recorder GR
Gas Detectors: MSAUltima X NH3 and Chillgard 5000 Ammonia

Fly Ash Ponds

Fly Ash Slurry Flowmeters – Siemens 5100W Magmeters, Siemens Clamp-on Flowmeters FS230
Fly Ash Slurry Density Measurement: Thermo Density Pro
Pond Water pH Measurement and Control: ECD S80 and T80, Signet 2724-2726
CO₂ Flow Measurement to Bubble Ring in Pond: RCM Mechanical Gage, Universal Flow OFS
CO₂ Buildup Detection in Shelter: MSA Ultima XIR
Effluent Flow Measurement: Siemens-Milltronics LUT400 and HydroRanger HMI
Effluent pH Measurement: ECD S80 and T80

Control Rooms

Paperless Recorders and Data Collection Systems: Gilson Recorder GR
Process Indicators and Small Annunciators: Precision Digital PD6000, PD7000, PD158
Loop Controllers: Moore Industries 535
Pneumatic Converters for Electronic Interface Applications: Moore Industries IPT2, IPX2, ITT NeoDyn
Signal Conditioners, Isolators, Integrators, Power Supplies: Moore Industries ECT and PULS

Miscellaneous Areas: Instrumentation and Equipment

Oil Storage Tank Levels: Siemens LR250, Siemens DP Cells DSIII, Gilson Submersibles
Diesel Engine Oil Consumption – Siemens, Universal Flow MN Series, McNaught Positive Displacement
Sumps and Drain Level Controls – Siemens ULS-200, LUT 400 Gilson Submersibles, Precision Digital PD765, PD6000
Oil Reclaim Interface Level Detection: Siemens-Milltronics CLS200, FCI FLT93B
Confined Space Monitors: MSA Altair 4XR and Altair 5X
Transmitter Testing Manifolds: Siemens
Remote Data Gathering to DCS- Elpro Wireless 905U, 905UG and 915U Wireless Mesh, OleumTech

Gas Fired Turbines – Simple Cycle…

Lube Oil Flows: McNaught Positive Displacement, UFM Vane Style meters Series MN, Comate Vortex, Turbines Inc.
Lube Oil Levels: Siemens Radar LR250, Siemens Ultrasonics LUT400, Siemens Probe LU, Siemens Flange Mounted Levels, Quest-Tec Magnetrac Magnetic Site Gages and Site glasses, Gilson Submersible Level Transmitters, Oleumtech wireless level, Siemens Capacitance Point CLS200 and CLS300, Precision Digital Process Displays PD765 and PD6000
Engine Combustion Chamber LEL Monitoring: MSA Ultima XIR
Generator Hydrogen Cooling Leak Detection: MSA Ultima, General monitors, MSA Portable Gas Monitors Altair 4XR
Gas and Oil Pressures: Siemens Pressure Transmitters DSIII
Temperature Monitoring: Smart Sensors Inc, Moore Industries RTI-1, RTI-2, THZ3/TDZ3, Precision Digital PD765 and PD7000, Banner Wireless

In Plant General Gas and CO Leak Detection: MSA Ultima X
Alarm Beacons and Horns: E2S Alarm Horns and Beacons, Precision Digital Annunciators PD158 and PD8-158 Explosion Proof Power Transducers and Frequency Monitoring: Moore Industries FDY Frequency Transmitter, Moore PVT and PWT

To Combined Cycle…

Intake Screen levels and Screen Activation: Gilson Submersible Levels, Siemens Radar Probe LR and Ultrasonics Probe LU, LUT400, Siemens HydroRanger HMI, Precision Digital PD6060
Cooling Water Flows: Siemens Magnetic Flowmeters 5100W, Signet insertion Mags 2551 and 2552, Siemens Clamp-on Flowmeters FS230, Soundwater Technologies, UFM Vane Meters
Cooling Tower Sump Levels – Siemens Ultrasonics Probe LU, LUT400, HydroRanger 200 HMI, and Radars Probe LR, Gilson Submersible