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## GILSON ENGINEERING POWER INDUSTRY GUIDE

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**Instrumentation and control products for  
power plant projects...**



### **PITTSBURGH, PA**

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### **COLUMBUS, OH**

2697 Sawbury Blvd  
Columbus, OH 43235-4582  
p (614) 889-2150  
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### **CLEVELAND, OH**

PO Box 450  
Chagrin Falls, OH  
p (440) 5430300  
f (440) 543-1230

### **CHARLESTON, WV**

505 Capitol Street  
Charleston, WV 25301-1221  
p (304) 342-0012  
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### **TOLEDO, OH**

26953 Mingo Drive  
Perrysburg, OH 43551-1071  
p (419) 8741178  
f (419) 8745333

### **ORLANDO, FL**

721 Mendez Way  
Longwood, FL 32750-6509  
p (407) 3324454  
f (407) 3324969

### **TAMPA, FL**

828 Walsingham Way  
Valrico, FL 33594  
p(813) 655-1942  
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# 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 :  
 Drexelbrook , TN-KSI  
 Tripper/Dumper Car Position – TN-KSI Laser Gage, Turck, Banner  
 Motor Load, Winding & Bearing Temperature – Moore Industries, Smart  
 Sensors  
 Unloader Cab Console Process Display and Annunciation – Precision Digital  
 Interface Relays for Controls - Releco Relays  
 Motor and Bucket Wheel Speed Measurement Systems - Airpax  
 CH<sub>4</sub>, CO Monitors, Fire Detection Systems – MSA, Fenwal  
 Pressure Sensors for Hydraulic Oil and Water – ITT Neodyne, Sensotec  
 Flowmeters for Service Water – Sparling, Seametrics  
 Belts: Alignment & Zero Speed Switches – Turck, Banner, EEC  
 Belt Weigh Scales – TN-KSI

## Coal Feeders/Pulverizers/Combustion

Coal in Feeder Pipes – Drexelbrook Curved Flush Plate  
 Probe, TN-KSI Nuclear, Banner Photoelectrics  
 Pulverizer Gate Valve Position – Turck Proximity Switches  
 Motor Load, Winding & Bearing Temperature – Moore  
 Industries, Smart Sensors  
 Interface Relays For Controls – Releco Relays  
 Damper Drives for Pulverizers, Hot/Temperature/Shutdown, etc. –  
 Type K Damper Drives  
 Data Acquisition Systems for Temperature, Load, etc – Westronics  
 Air Flow Transmitters – FCI, Moore Products, FTI  
 Air Temperature Sensors & Transmitters – Moore Industries,  
 Smart Sensors  
 Primary Valves and Manifold Valves for Pressure & D/P Cells – Hex Valve



## FD & ID Fans & Motors

Motor Load, Winding & Bearing Temperature – Moore Industries, Smart Sensors  
 Motor Speed Measurement Systems - Airpax  
 Vibration Monitor Output Signal Conditioning : Moore Industries  
 Fast-Acting Damper Drives – Type K

## Boilers: Fire Box, Drum, Heater/Deaerators, Condenser, Oil Lighters, Soot Blowers

O<sub>2</sub> Measurement - Thermox  
 Pressure Measurement in Boiler, Drum or Heater - Moore Products  
 Boiler Tube Temperature Sensors - Smart Sensors  
 Flame, Water & Steam Temperature Sensors - Smart Sensors  
 Data Acquisition Systems - Westronics  
 Burner Nozzle Tilt Drives - Type K  
 Drum and Heater Level Indication/Control/Tripping - Solartron, Moore Critical Transmitter  
 Soot Blower Position Sensors - Turck, ITT NeoDyne  
 Oil Lighter Flow Measurement and Totalization - Flowdata  
 Pressure Regulators - Jordan Valve Valve Positioners - Moore Products  
 Condensate Flow Measurement – Seametrics, Moore Products  
 Pump Seal Water Detection - Drexelbrook

# To the steam...

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

Filter Screen, Basin and Tower Level Controls - Drexelbrook  
River and Discharge Temperature Sensors - Smart Sensors  
Radio, Fiberoptic & Hardwired Data Transmitters – Moore Industries, Westronics  
Pump Motor Bearing and Winding Monitoring – Moore Industries  
pH & Conductivity Monitoring – ECD  
Loop Controls for pH & Conductivity, Levels, Flows – Moore Products  
Valve Positioners - Moore Products  
Resin Bed Level Measurement - Drexelbrook  
Acid & Caustic Level Sensors - Drexelbrook  
Hydrazine Analyzers - Thermox  
Water Flowmeters - Sparling, Seametrics  
Flow Totalizers - Moore Industries, Precision Digital  
Valves for Flow Control and Pressure Regulation - Jordan Valve



## Turbine/Generator Area

Speed Sensors - Airpax  
Temperature Sensors - Smart Sensors  
Condensate Drip Leg Monitors – Solartron  
Data Collection - Westronics  
Turbine Valve Limit Switches - Banner Engineering, Turck  
Generator Field Temperature Monitoring - Moore Industries, Westronics  
Vibration Monitor Signal Conditioners - Moore Industries  
60 Hz Frequency Monitors - Moore Industries  
Hydrogen Flow Monitors - FCI  
Hydrogen/Oxygen/Air Gas Analyzers - MSA

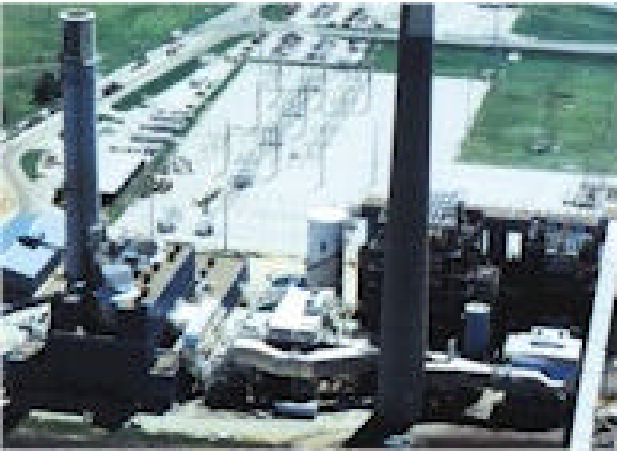
## Flue Gas & Ash Handling (also see FGD, SCR & Stack sections)

Economizer, Precipitator, Hopper Temperature Sensors - Smart Sensors  
Precipitator Power Consumption Monitors - Moore Industries  
Baghouse Differential Pressure & Suction Sensors - Moore Products, ITT NeoDyne, Turck  
Ash Level Sensors - Drexelbrook, TN-KSI  
Gate Valve Position Sensors - Turck  
Hopper Heater Controls - Fenwal, Westronics  
Hot Gas Damper Drives - Type K  
Data Collection Systems - Westronics

## SCR Systems

Ammonia Leak Detectors - MSA  
Ammonia Tank Level Measurement - TN, Drexelbrook, Moore Products  
Ammonia Tank Temperature Measurement - Smart Sensors, Moore Industries  
Remote Data Collection & Transmitting - Moore Industries, Westronics  
Pressure Regulators - Jordan Valve  
Local Indicators - Precision Digital

# To the stack.



## FGD/Scrubber Systems

Lime Silo & Bin Levels - Drexelbrook, TN/KSI  
Plugged Chute Detection - Drexelbrook  
Airveying Line Flow Detection - FCI  
Lime Slurry Level Measurement - Drexelbrook, TN/KSI, Moore Products  
Slurry Density Gages - TN/KSI  
Absorber pH Measurement - ECD  
Slurry Temperature Sensors/Transmitters - Moore Industries  
Slurry and Makeup Water Flowmeters - Sparling, Seametrics  
Flow Controllers - Moore Products  
Pump Motor Bearing & Winding Monitoring - Moore Industries  
Sulfur Dioxide Gas Detectors - MSA

## Stacks

In-situ Oxygen Probes - Thermox  
CEM Data Transmitters - Moore Industries  
Stack Temperature Profiling and Flow Verification - Moore Industries  
Stack Gas Mass Flow - FCI, Moore Products  
CEM Backup Recorders - Westronics  
Gas Detectors - MSA

## Fly Ash Ponds

Fly Ash Slurry Flowmeters - Sparling Instruments  
Fly Ash Slurry Density Measurement - TN/KSI  
Pond Water pH Measurement and Control - ECD  
CO<sub>2</sub> Flow Measurement to Bubble Ring in Pond - RCM  
CO<sub>2</sub> Buildup Detection in Shelter - MSA  
Effluent Flow Measurement - Drexelbrook, Plastifab  
Effluent pH Measurement - ECD

## Control Rooms

Paperless and Paper-based Recorders and Data Collection Systems - Westronics  
Process Indicators and Small Annunciators - Precision Digital  
Hand/Auto Stations and Loop Controllers - Moore Products  
Pneumatic Converters for Electronic Interface Applications - Moore Industries, ITT NeoDyn  
Signal Conditioners, Isolators, Integrators, Power Supplies - Moore Industries

## Miscellaneous Areas : Instrumentation and Equipment

Oil Storage Tank Levels - Drexelbrook  
Diesel Engine Oil Consumption - Flowdata  
Sumps and Drain Level Controls - Drexelbrook  
Oil Reclaim - Interface Level Detection - Drexelbrook  
Confined Space Monitors - MSA  
Transmitter Testing Manifolds - Hex Valve

