

Pickering Associates' highly professional staff includes engineers, designers and support personnel, and our sole focus is complete customer satisfaction. Our collaborative team specializes in project development, project management and engineering services in the industrial, manufacturing, institutional and commercial sectors.

A broad client base reflects our highly diversified approach to meeting the challenges of each project. By integrating our expertise in electrical, mechanical, civil and structural engineering with extensive capabilities in controls & automation and safety inspection & training, we are able to bring innovative thinking to design and execution of every project. We also have a dedicated drafting group to fulfill needs for schematics and diagrams for everything from electrical and plumbing systems to steel construction.

What sets us apart is our ability to conceptualize, plan and deliver all phases of our clients' projects. Whether you are looking for small scale electrical or mechanical design installations, large-scale process renovations, or complete commercial facility construction, Pickering Associates will bring state-of-the-art engineering, tools and techniques to your project.

See www.pickeringusa.com for additional information.



the art of engineering



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**PROCESS
ENGINEERING**

www.pickeringusa.com

PARKERSBURG, WV 304-464-5305

ATHENS, OH 740-593-3327

Process Engineering Services

Process Debottlenecking

Project Cost Analysis

Chemical Compatibility/Reactivity

Layer of Protection Analysis (LOPA)

Process Safety Management Services

Process Hazard Analysis (PHA)

- Complete program implementation
- Certified PHA facilitators
- Revalidations
- Design phase safety reviews

Training

- Training program development
- Management of training documentation

Pre-Startup Safety Review

Mechanical Integrity

- Reliability Hazards Assessment
- Failure Modes and Effects Analysis (FMEA)

Incident Investigation

Emergency Planning and Response

Compliance Audits

Other Complementary Engineering Services

Project Management

- Project Management Professional (PMP) trained project managers

Electrical Engineering

- Code evaluation
- Design service
- Arc Flash Studies

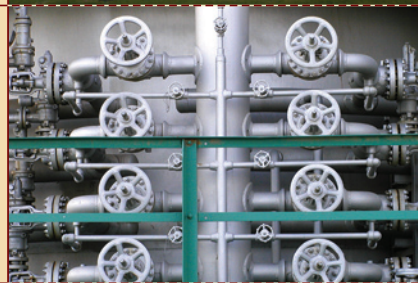
Automation and Control Services

- Authorized Rockwell® Integrator
- Engineered Safeguards

Site Vulnerability Assessment (SVA)

Mechanical and Piping Design

Environmental Permitting Assistance



OSHA's process safety management standard (29 CFR PART 1910.119) contains requirements for preventing or minimizing the consequences of catastrophic releases of toxic, reactive, flammable or explosive chemicals. All processes covered by this standard are required to have a PHA which identifies, evaluates, and controls the hazard involved in the process.

The PHA may also be used to satisfy the requirements of EPA Clean Air Act Rule (40 CFR 68). Each PHA must be updated and revalidated once every five years to ensure that the analysis is consistent with the current process.

