

ENGINEERING SUCCESS

JNE provides the design and engineering services you need, from feasibility studies and environmental services to engineering, project management, process automation, or complete EPCM project delivery.

JNE Consulting

JNE Consulting provides comprehensive multi-disciplinary engineering and project delivery services, enabling clients to deal with a single source through all phases of project engineering, conceptual engineering, detail design engineering, procurement, construction, and start-up.



JNE Automation

With TÜV Rheinland certification, JNE Automation's Functional Safety Engineers specialize in control-reliable Process Safety Systems and help clients migrate legacy DCS & PLC systems to modern, integrated architectures to improve quality, yield, and reduce operating costs.



JNE Power

JNE Power provides complete design engineering services, fully integrated system installation, and construction services. This includes steam and gas powered turbo-generator systems (natural and process waste gases), reciprocating engine systems, and clean energy projects.



JNE Environmental

JNE Environmental specializes in resolving wastewater issues of any size for all major industries. We design the process, implementation, and chemicals to effectively treat your industrial wastewater, offering customized solutions and ongoing support to all of our clients.



Industrial Project Expertise

JNE has expertise in supporting greenfield projects, as well as brownfield projects integrating new and/or replacement equipment into an operating environment. Our clients rely on our knowledge, insight, and decades of industrial experience to minimize delays and project costs from the planning phase through to final implementation.

Custom Project Delivery

We optimize our approach to meet your objectives for single discipline and multi-discipline projects, maintaining a focus on safety, constructability, schedule, and cost. JNE remains engaged through project completion to facilitate construction and commissioning.

Commitment to Safety

Environment, Health and Safety (EH&S) performance is held to a high standard at JNE, and is essential to our business strategy. We promote best practices of EH&S throughout project planning and execution with appropriate safety systems and ongoing training for the prevention of incidents and to avoid injury, asset losses, and business interruption.

Quality Control

JNE Consulting has been ISO 9001 registered since 1996, currently registered at ISO 9001:2015. Our Nuclear Quality Management System ensures that our services are compliant with both CSA N286-05 and CAN3-Z299.1.

SOLVING YOUR MOST DEMANDING ENGINEERING PROBLEMS

Founded on the values of Respect, Integrity, Diversity, and Reliability; we have grown from one engineer to hundreds of professionals thanks to the trust and confidence our clients have placed in us since 1980.

Civil/Structural

- Site Preparation — Geotechnical Surveys, Environmental Surveys, Roadways, Underground Services
- Structural Modeling, including Static and Dynamic Analysis
- Crane Runway Analysis and Design
- Building and Equipment Support Structures
 - Industrial Buildings
 - Process Equipment Support Structures
 - Rack Structures
 - Structures for Tanks, Bins and Hoppers
- Reinforced Concrete Structures, including Piled or Spread Building Foundations
- Heavy Piled and Mass Pour Equipment Foundations
- Foundation Frequency Analysis for Large Rotating Machines
- Structural Condition Assessment, including Recommendations for Remedial Work



Forensic

- Structural Collapses of Steel, Wood, Concrete, and Masonry Structures
- Assessment of Structural Damage due to Vehicle and Tree Impact
- Fire and Explosion Damage Assessment
- Structural Failures of Tanks, Silos, Cranes, Racking Systems, Stages, and Ladders
- Investigation of Structural Concerns Associated with Vibrations, Settlement, and Leakage
- Damage Assessment and Failure Investigation of Electrical and Mechanical Systems and Components
- Assessment of Unsafe Buildings and Scope of Emergency Measures
- Building Code Review for Residential, Commercial, Industrial, Institutional, and Farm Buildings
- Building Envelope Assessment
- Computer Modeling, Analysis, and Design of Steel, Wood, Concrete, and Masonry Structures
- Preparation of Engineering Drawings for Repair Cost Estimation and Building Permit
- Construction Claims

Mechanical

- Pump, Compressor, and Heat Exchanger System Design
- Pressure and Atmospheric Tank Design
- Fire Protection Systems
- Heating, Ventilation, and Air Conditioning (HVAC) Systems
- Cooling Water and Refrigeration Systems
- Water Treatment Systems
- Site Servicing Plans
- Machine Design
- Material Handling Conveyor Systems

Piping

- Heating, Ventilation, and Air Conditioning (HVAC) Systems
- Power, Process, and Utility Piping Systems
- Pipe Stress Analysis
- Pressure Envelope Analysis
- Hydraulic, Compressible, and Two-Phase Flow Analysis
- 3D Modeling
- Plant Layout

Electrical, Instrumentation + Controls

- Power Systems
 - Power System Design and Analysis
 - Arc Flash Studies
 - Energy Studies
- Substation Design & Layout
- Design of Grounding and Lighting Protection Systems
- Equipment Specifications
 - Power Distribution Equipment
 - Instrumentation and Control Equipment
- Instrumentation and Control Systems
- Motor Control and Drive Systems including Variable Frequency Drives (VFDs) for Energy-Saving Applications
- Embedded or Exposed Conduits and Cable Tray Layouts, Conduit and Cable Schedules
- Design of Lighting Systems and Building Utilities
- Area Classifications

Safety Services

- Training Programs
- Rescue Services
- Safety Management, Services, and Consulting
- Environmental Consulting
- Pre-Start Health & Safety Reviews

Wastewater + Water Treatment

- Boiler and Cooling Tower Chemicals
- Defoamer, Deodorizer, and Algaecides
- Environmental Compliance Approval (ECA) Services
- Original Equipment Manufacturer (OEM) for Dissolved Air Flotation (DAF) Units, Clarifiers, and pH Correction Systems
- Sewer By-Law Compliance Testing
- Wastewater Treatment Chemicals, for the Removal of Biological Oxygen Demand (BOD), Heavy Metals, Phosphorous, Total Suspended Solids (TSS), Polycyclic Aromatic Hydrocarbons (PAH), Fats, Oils & Greases (FOG), Total Kjeldahl Nitrogen (TKN)
- Wastewater Treatment System Design and Troubleshooting

Automation + Panel Shop

- Legacy System Upgrade and Replacement
- Safety Systems — Machine and Process
- Manufacturing Intelligence
- Vision and Drive Systems
- Wastewater & Water Treatment Controls
- Boiler Control and Optimization, Inventory Management, Logistics, Material Handling & Conveying
- Power and Energy Solutions, Turbo Generation
- Computer System Applications
- Testing and Commissioning
- Supervisory Control and Data Acquisition (SCADA)

Project Services

- EPCM Project Services
- Complete Project Management
- Computer System Applications
- Construction Management
- Energy Audits and Conservation Strategies
- Project Estimating
- Facilities Planning
- Feasibility Studies and Cost Analyses
- Procurement Services of Equipment and Material
- Quality Assurance
- Turnkey Project Services

