ENGINEERING SUCCESS

THE **INE** GROUP

We provide the design and engineering services you need, from feasibility studies and process design to engineering, environmental services, process automation, project management, project delivery, and commissioning.

PROFESSIONAL ENGINEERS / ISO 9001:2015 REGISTERED



JNE Consulting

JNE Consulting provides comprehensive, multi-discipline engineering and project delivery services, supporting clients from process design to feasibility and commissioning.

JNEGROUP.COM / CONSULTING



JNE

Automation

JNE Automation specializes in continuous process and safety control systems, modernizing PLC and HMI systems, integrating OEM equipment, and supplying custom control panels.

JNEGROUP.COM / AUTOMATION



JNE Environmental

JNE Environmental designs the process, implementation, and chemicals to treat industrial wastewater, offering customized solutions and ongoing support for all industries.

JNEGROUP.COM / ENVIRONMENTAL



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 & 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 to ISO 9001:2015. We are committed to the continuous improvement of our quality system, with project deliverables completed to a benchmark that meets or exceeds industry standards.

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.

SOLVING YOUR MOST DEMANDING ENGINEERING CHALLENGES

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

PROCESS

- Heat and Material Balances
- Process Flow Diagrams (PFDs)
- > Piping and Instrument Diagrams (P&IDs)
- Process Simulation
- Process Equipment Sizing
- Pressure Relief Device and System Sizing
- Process Hazard Analyses
 - What-If / Checklist
 - Hazard and Operability Analysis (HAZOP)
 - > Failure Modes and Effects Analysis (FMEA)
 - Fault Tree Analysis (FTA)
 - > Event Tree Analysis (ETA)
 - > Layers of Protection Analysis (LOPA)

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

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 SUPPLY

- Legacy System Migrations & Modernizations
- Programmable Logic Controllers (PLC)
 & Distributed Control Systems (DCS)
- Human Machine Interface (HMI)
 & Information Visualization
- Supervisory Control and Data Acquisition (SCADA) & Historians
- Plant OT Networks
- > Safety Systems Machine and Process
- Drive Systems
- Instrumentation & Control Valve Specification
- Control Panel Design & Supply
- Wastewater & Water Treatment Controls
- Boiler Plant Controls
- Burner Appliance Controls
- Power & Energy Management Solutions
- Crane Automation
- Testing and Commissioning

INDUSTRIAL SAFETY

- > Pre-Start Health & Safety Reviews
- Canadian Machine Guarding Design
- Purchasing Specifications/Safety Qualifications
- Hazardous Area Classifications
- Fire Code Consulting
- Hazardous Process / Complex Risk Reviews
- Risk Engineering + Analysis
- > Compliance / Regulatory Assessments
- Confined Space Assessments
- MoL Order Compliance Reporting
- Accident / Fatality Investigation
- Expert Witnessing / Testifying

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













