

CURRICULUM VITAE FOR:
BRIAN D. JAMES, P.ENG.

EDUCATION

Ryerson Polytechnical University

- Bachelor of Mechanical Engineering, 1990

University of Toronto

- Accreditation courses for Professional Engineers Ontario

PROFESSIONAL ASSOCIATIONS

- Professional Engineers Ontario
- National Association of Fire Investigator
- Canadian Association of Fire Investigators
- International Association of Arson Investigators

CERTIFICATIONS

- Certified Fire and Explosion Investigator
- Certified Vehicle Fire Investigator

EXPERIENCE

2001 to Present

Origin and Cause Incorporated

Mississauga, Ontario

Forensic Engineer

- Origin and cause evaluation of vehicle fires, heavy equipment fires and machinery fires.
- Mechanical evaluation of equipment including electrically and hydraulically driven machinery, components, sub-systems, electrical components, appliances and other devices for assessment of failure modes, evaluation for compliance to applicable codes and standards or for suitability of design and operation.
- Review and assessment of manufacturing processes and equipment from a variety of industries.
- Evaluation of mechanical damages sustained to a variety of equipment and components as a result of shipment by sea, rail or overland transport
- Assessment and verification of repairs to equipment and machinery
- Determine the origin and cause of residential and commercial structure fires based on an

engineering analysis and investigation of physical evidence and interviews, including the results of testing and laboratory analysis.

- Co-ordination and preparation of reports, independent laboratory results testing and studies for all facets of the above functions

1999 to 2001

Rochon Engineering Incorporated
Forensic Consulting Engineers and Code Consultants
Concord, Ontario

Fire Protection Engineer

- Determine the origin and cause of residential and commercial property losses and vehicle fires
- Mechanical evaluation of equipment, machinery and other devices for assessment of failure modes, compliance to applicable codes and standards or for suitability of design and operation.
- Evaluation of damages sustained to equipment and components as a result of damages in transit
 - Evaluation of fire and life safety aspects of architectural, mechanical and electrical drawings or buildings to ensure compliance with the Ontario Building Code and Fire Code.
- Review and assessment of manufacturing processes and equipment from a variety of industries.

1997 to 1999

Ideal Industries Incorporated
Ajax, Ontario

Manufacturing Engineer

- Trouble shoot and isolate mechanical, electrical and hydraulic failures on production equipment including injection moulding machines, injection moulding dies, granulators, mixers, custom designed rotary index assembly equipment, hydraulic and mechanical presses, manual work stations, packaging machinery and custom designed sorting, handling, unscrambling and part orientation machinery.
- Provided cost effective technical support in all areas of the development, manufacture And production of existing and new products produced in injection moulding shop, spring winding shop, assembly, packaging and warehousing departments.
- Management of facilities, Maintenance and Quality department resources, cost centres, staff, production capacity, planning and capital expenditures.
- Co-ordinate maintenance of building, all production and material handling equipment including injection moulding dies within 70,000 sq. ft. facility.
- Provided liaison between Corporate Engineering and Quality Control, as well as external suppliers and customers in order to ensure standards were continually met and quality issues were resolved swiftly.

- Selection, cost justification, and implementation of new production processes, equipment and tooling for injection moulding dies and equipment, assembly equipment and packaging machinery.
- Implemented preventative maintenance program for all equipment and facilities which minimized machine down time and increased productivity.
- Reduced facilities manufacturing costs by using combination of effective, manufacturing efficiencies, preventative maintenance, electrical energy and power quality management techniques.
- Increased production by 30% with combination of preventative maintenance, optimized PLC programming and extensive machine design experience using existing equipment with no increased capital expense.

1994 to 1997

- **Escalator Handrail Company**
Oshawa, Ontario

Project Engineer

- Building construction management of expansion projects and manufacturing facilities around the world, including research, sourcing and negotiating the manufacture and purchase of required equipment or facilities.
- Co-ordinate the design, specifications and controls for purpose built equipment and systems including plastic and rubber extrusion equipment, hydraulic presses, steam boilers, and materials handling and processing equipment.
- Effectively manage major projects involving company growth and process change in North America, Germany and China.
- Co-ordinated responsibilities and execution of projects with staff at each of satellite plants.
- Design, layout, engineering and acquisition of locally manufactured equipment for satellite manufacturing plants.
- Management of expansion project that doubled the size of head office. This expansion included both manufacturing and office layout and design work. Implemented an open office layout and design complete with modular furniture and custom design lighting system for ergonomic use of computer system.
- Designed the control system and operator interface for equipment used in China facility to provide on line data acquisition and global communications to these manufacturing cells. This design was adopted and implemented as a new corporate standard.

1992 to 1994

- **Escalator Handrail Company**
Oshawa, Ontario

Mechanical Designer

- Identify problem areas of production, process or machine operation, and provide innovative, cost effective solutions for plastic and rubber extrusion equipment and dies, hydraulic presses, packaging equipment, material handling and processing equipment

and steam boiler plant.

- Responsible for design, sourcing, acquisitions and commissioning of custom designed equipment. This equipment was used in product production and in ongoing research and design projects.
- Create required production, maintenance, operating and safety procedures or manuals for operation of equipment and process.
- Created and authored design section of ISO 9001, throughout certification process.
- Redesigned head office plant layout which increased production capacity by 25% using the same space requirements. This plant layout became a corporate standard use for all satellite plants and future expansions.

1989 to 1992

HiBar Systems

Richmond Hill, Ontario

Application Technologist

- Responsible for development, designing, manufacturing, programming, installation and commissioning of specialty machines such as rotary index assembly equipment, vacuum fillers, packaging equipment, and positive displacement pumps installed throughout North America and Europe used for both commercial and military applications.
- Customer/Distributor liaison in concepting packaging and specialty machinery requirements and design configuration, as well as various custom tailored product designs used in a variety of industries worldwide.
- Prepared operating manuals and technical documentation packages including schematics, PLC logic and assembly drawings to assist in ongoing remote customer support and trouble shooting of custom designed machinery, as well as optimization of operating parameters,

July, 1988 to October, 1989

Ryerson Polytechnical University

Toronto, Ontario

Research Assistant

- Developed, tested and modified computer models of Low Grade Energy Recovery Systems, using Aspen Plus simulation language and co-authored report for the Ontario Government
- Conducted extensive literary search of past and/or present research of low-grade energy recovery systems for private company to assist in the development of an experimental test model
- As a result of research and communications, initial design of system was modified substantially to allow more predictable results. Data from this study provided background and content for my thesis

Additional Courses and Seminars

- Fire investigation / Arson Task Force Seminar
- Certified Vehicle Fire Investigator
- Investigation of Gas and Electric Appliance Fires
- Electrical Equipment / Post fire analysis
- Claims 1 – The Insurance Institute of Canada
- NFPA 921 Fire and Explosion Training Seminar
- Certified Member - Joint health and Safety Committee
- Project Management
- Engineering Management
- Industrial Electrical Energy Management
- Advance Concepts in Innovative thinking and Creative Problem Solving for Professionals
- Design of Experiments
- Action Oriented Supervision
- Extrusion Problems and Solutions
- Basic course in Industrial Fabric Technology