

# **CURRICULUM VITAE**

# Thomas H. Prescott, M.ASc., P.Eng.

Mr. Prescott has over 30 years of engineering and project management experience on design, installation, and testing of mechanical and process systems in various areas including military, petrochemical, and electric power production industries. Mr. Prescott has particular expertise in vulnerability assessments and pilot testing of control facilities for mussel biofouling control. He has experience with many clients throughout Canada, U.S.A., and overseas and is currently a partner and senior project engineer at RNT Consulting Inc.

#### ACADEMIC BACKGROUND

- Master of Applied Science, Mechanical Engineering (University of Waterloo) 1988
- Bachelor of Engineering, Mechanical Engineering (Royal Military College) 1970

#### PROFESSIONAL EXPERIENCE

Tom has diverse experience in engineering including the following areas:

# **Design Engineering and Project Engineering**

- Project Engineer for power plant vulnerability assessments posed by aquatic invasive species at hydraulic dams, power plants and pumping plants in Brazil and USA, and nuclear plants in Spain and USA.
- Project Manager for installation and evaluation of zebra/quagga mussel control systems in nuclear and fossil plants in Ontario.
- Project Engineer for design and installation of aquatic weed control system in a nuclear plant in Ontario.
- Specified design and performance requirements for rotating pumping machinery for high reliability applications in nuclear power plant designs. Managed technical aspects of subsequent equipment contracts. The equipment contracts typically ranged from about \$ 0.1M to \$ 7M in value.

### **Construction Engineering**

• As Resident Engineering Manager at a nuclear power plant construction site in South America costing approximately \$600M, he set up and managed a program to approve and implement site design changes and to prepare as-built drawings of the power plant systems. The plant design comprised approximately 21,000 drawings. The drawings and design documents were reviewed, updated, approved and delivered to the plant owner over a two year period. The resident engineering team comprised 12 professionals and was delegated design authority to resolve field engineering problems from the head office.

### **CURRICULUM VITAE**

# Thomas H. Prescott, M.ASc., P.Eng.

• As Construction Manager for a refractory engineering company that designed and supplied linings for high temperature process lines in existing and newly constructed petrochemical plants and pulp mills, he was responsible for planning, constructing and installing linings. He supervised the construction of the process lines and the installation of the refractory linings at construction sites with crew sizes from 5 to 15 refractory brick masons. Refractory installations included brick, cast-in-place, gunnite and ceramic fibre linings. He also supervised installation of acid resistant linings and fireproof coatings at petrochemical plants. Contracts were of various sizes ranging from \$10K to \$1M. Most contract installations were required to be done during routine plant outages requiring careful planning, innovative pre-assembly and strict attention to detail.

# **Management**

- Business Operations Manager and Partner in a Consulting Engineering firm specializing in failure and loss analysis in the transportation industry. The firm has a per annum revenue of \$1.1M and consists of 4 engineers and 2 technologists. Over a period of 3 years, Prescott has introduced new work systems and streamlined the company operations, reducing overhead administration expenses from 10% of revenues to 3% of revenues while meeting revenue targets.
- Managed a Computer Aided Design and Drafting (CADD) operation for Atomic Energy of Canada Ltd. (CANDU Division), a large Canadian design and build engineering organization. The CADD operation had an annual operating budget of \$1.3 million. This system expanded from 5 to 34 workstations under his management over a period of 5 years. Also, he moved the design and drafting capability from traditional manual methods to effective 3-D CADD between 1985 and 1989. This included dealing with the many cultural issues that accompany technological change. One design project now underway with a team of 100 technical staff has no drawing boards and uses 3-D CADD for all design and drafting. The 3-D CADD program has input and output links to many other aspects of the design including stress analysis, safety analysis, bills of material, and specifications for procurement.
- Supervised a staff of 15 engineering professionals who specify software requirements, evaluate commercial software, modify the commercial software to meet specific design needs and then train the design staff how to use the applications effectively. Where commercial software was not available, these engineering professionals developed in-house applications programming in "C", Fortran and Informix Relational Database languages. About 40 applications programs were introduced about one fifth of which were in-house developed software.
- Advised a committee of Senior Staff at the vice-president and general manager level on information technology strategic planning and initiatives. Prepared annual plans for allocation of funding and staffing resources for approval.
- As operations manager for the mechanical component design department he was in charge
  of 4 managers and 80 design staff. The department work included design and analysis of
  pressure vessels, materials handling systems and remote tooling design for hazardous work
  areas. The work was characterized by a need for high quality products that were extremely
  reliable and safe. Delivery of designs on time and within budget were also key success
  factors. To this end, he designed and introduced a successful PC-based engineering work

### **CURRICULUM VITAE**

# Thomas H. Prescott, M.ASc., P.Eng.

control system which allowed the work units to identify their engineering deliverables and to control costs.

## PROFESSIONAL MEMBERSHIPS

Professional Engineer (P.Eng.), Association of Professional Engineers Ontario

### PUBLICATIONS AND PRESENTATIONS

- Prescott T.H. November 2009. Vulnerability Assessment of Zebra and Quagga Mussels on Facilities from Intake to Discharge. Presented at the Sligo Institute of Technology Water Quality Issues Conference, Athlone, Ireland
- Prescott T.H. February 2000. *The Proposed Use of Continuous and Intermittent Ozone for Zebra Mussel Control at Ontario Power Generation*. Presented at the 10th International Aquatic Nuisance Species Conference, Toronto, Ontario.
- Prescott T. H. February 6-7, 2008. *Dealing with Engineering Experts*. Presented at the Osgoode Hall Law School Professional Development Program.
- Burroughs, J. W. and T. H. Prescott. 1990. *Advanced computer methods to design, construct and maintain CANDU reactors*. Proceedings of the 30<sup>th</sup> Annual Conference, Canadian Nuclear Association, p. 3/11-18.
- Prescott, T. H. 1989. *Application of CADD to construction of CANDU power stations*. Presented at the Canadian Electrical Association Spring meeting.
- Prescott, T. H., Sayles, C. D. and E. D. Wessmann. 1989. *CANDID integrated design system.*Proceedings of the 10<sup>th</sup> Annual Conference, Canadian Nuclear Society, vol. 2, p.3/8-14.