

# VALERIU ZODIAN

## SUMMARY

- Twenty five years engineering experience in design, distribution, commissioning, operation and maintenance of low and high voltage electric systems.
- Engineering experience in Canadian documentation, electrical and instrumentation systems for:
- Aircraft electric systems - AlliedSignal Aerospace Canada
- Experimental Instrumentation Design -Flight Test Center - de Havilland Inc. - Bombardier
- Industrial, commercial and residential buildings-MCW Electrical & Mech Consulting Eng
- Water Pollution Control Plants (WPCP) -R.V.Anderson Assoc. Ltd., Consulting Eng.
- Nuclear Power Plants (NPP)-CANDU Reactor-Atomic Energy of Canada Ltd. (AECL) design
- Excellent training and experience in QA Program for NPP and industrial facilities.

## WORK EXPERIENCE

**Aug.1996-March 1997** *AlliedSignal Aerospace Canada, Toronto*

**Electrical System Engineer** designing electrical system for DASH 8 Series 400

- Failure Modes Effect and Criticality Analysis, Fault Tree Analysis and Safety Analysis for the Electrical Power Generation and Distribution System.

**Sept.1995-Aug.1996** *Bombardier -de Havilland Inc., Toronto.*

**Flight Test Center, Experimental Instrumentation Design.**

- **Data acquisition system. DASH 8. Series 300 and 400.**

Designed technical documentation for flight test equipment as location, cable assembly and wiring and schematic diagrams for DASH 8 Series 300 and 400 as a **consultant**.

**Sept.1994-Sept.1995** *MCW Electrical & Mechanical Consulting, Toronto.*

**Electrical Design Engineer** designing electrical systems for industrial buildings using AutoCAD.

- Performed floor take-off for cooling loads for University of Manitoba.
- Worked for Energy Saving Contract for Ryerson Polytechnic University.  
- Performed electrical lighting audit and installation deficiencies.
- Designed electrical power, communication & lighting for Holt Renfrew Mall (Montreal), Metro Toronto Police, Litton Systems, Sprint Canada, Durham Regional Police.

**Nov.1991-May1992** *R. V. Anderson Assoc. Ltd, Consulting Engineers and Architect, Toronto.*

**Electrical Design Engineer** performing design activities for medium and low voltage electrical distribution systems (MCC, PLC, control diagrams, cables, lighting, specifications). Major projects in Water Pollution Control Plants:

- Molson Breweries, Etobicoke - electrical section for pH Control Facility.
- Huntsville Sewage Works improvements (WPCP) - electrical check and project coordination.
- Clarkson WPCP Extension - electrical section.
- Port Weller WPCP Upgrade-by-Pass Chlorination - electrical and control sections.
- Port Dalhousie WPCP Upgrade Phase 3 - electrical check, project coordination and control section.

**March1977-June1991** *Research Institute for Nuclear Power Plants, Bucharest.*

**DeputyProject Manager** -electric system of the 3300 MW Cernavoda NuclearPowerPlant.

-in charge with a team of 5 engineers and technologists.

(1983-1991)

- Designed electric system for CANDU Reactor (PC, MCC, one line and control diagrams, lighting, cables and cable trays) for Romanian alternative.(standardized voltage level, specific loads, specific partition between nuclear and conventional island, seismic qualification of equipment and subsystem)

- Assured the liaison with contractors and consultants (AECL Canada and Ansaldo Impianty).
- Coordinated design and site work surveillance of performance, design deviation request approvals, and technical assistance on site.
- Calculated cost estimates for the entire electric system.
- Coordinated the installation and system commissioning.

**Project Engineer** -seismic emergency power system -3300 MW Cernavoda NPP. (1981-1983)

- Designed MCC, power, instrumentation, control diagrams, power cables and cable trays.
- Performed short circuit calculations, computerized connection lists, and written nuclear safety reports.
- Prepared QA and inspection plans consistent with QA methods and procedures.

**Project Manager** -electric system of the 2600 MW Transylvania NPP. (1980-1981)

- Performed feasibility study for the project.
- Organized and supervised the activity of a team of 3 engineers and technicians.

**Design Manager** -electric system for the *Nuclear Research Institute* in Bucharest.

- Designed the electric distribution system (MCC, one line diagram, control diagrams, cables and cables tray, lighting ) for sections as: laser, seismology, materials, ultra high magnetic fields, and nuclear research reactor for radioisotope production. (1977-1980)

**1973-1977** *Research Institute for Power Industry, Bucharest.*

**Project Engineer** -electric system of the *Research Institute for NPP* in Pitesti.

- Designed the electric system for: - Triga Nuclear Research Reactor (28 MW) - USA-San Diego- Gulf Company,  
-Hot Cells -ACB-France,  
-Fuel element section  
-Co-generation plant.
- Designed seismic qualified class 1 and 2 electric systems (i.e., battery systems, distribution panels, inverters, rectifiers and cable trays).
- Coordinated the design concept and system installation documentation.
- Provided technical assistance, surveillance and commissioning.  
Calculated cost estimates.

**Project Engineer**- electric system of the 440 MW Olt NPP (VVER Russian NPP).

**Design Engineer** - electric systems for the 100 MW Borzesti Co-gen Power Plant extension and upgrade.

**1969-1973** *Co-gen Power Plant 800 MW, Bucharest.*

**Electrical Engineer:** Operation and maintenance of electrical installations and equipment.

**Distribution Engineer:** Distribution and maintenance of electrical installations and equipment.

**Installation Engineer:** Supervised installation and commissioning of primary and secondary -circuit of the electrical systems and equipment (0.4kv, 6kv, 35kv, 110kv, 220kv and 400kv) for the Co-gen Power Plants (Bucharest and Brazi).

## **EDUCATION**

1994	Electrical PLC, Humber College, Toronto.
1992-1993	Micro CAD System Analysis (AutoCAD 11,12) George Brown College, Toronto.
1988-1989	Commissioning and operation of Cernavoda NPP, Nuclear Energy State Committee, Bucharest.
1982-1983	Implementation of QA Program, Nuclear Energy State Committee, Bucharest.
1965-1969	<b>M.Sc. in Electrical Engineering</b> , Polytechnic University of Iassy, Romania.

## **LANGUAGES**

English, French, Russian, Romanian.