

Dr. Angela V. Manolescu

29 Geneva Dr., Hamilton, ON. -- L9C 3Z4 -- Tel: (905)538-1428

E-mail: dr_a_manolescu@yahoo.com

EXPERIENCE:

2000 - 2008 Retired OPG - Independent Contractor with **TEK 9 Materials and Components Solutions Consulting**

Kinectrics Inc.

- Corrosion Assessment of Transmission Line structures - 70 reports.
- Assessment (Metallurgical, Corrosion, Chemical) of Strand Samples from ACSR Cables.
- Assessment of General Condition of Contact Surfaces on a COUCH Rotary Relay.

Ontario Power Generation: Lennox GS

- Assessment of Waterside Surfaces of Waterwall Tubes to Establish the Need for Chemical Cleaning of Boilers from Units #1, 2, 3, 4.
- Development of a Quantitative Chemical Method for Analysis of Hydrogen Peroxide Residuals in Ozonated Water from Lennox GS.

Ontario Power Generation: Atikokan GS

- Metallurgical Examination of Fireside and Steamside Surfaces of Failed Reheater Tubes.

1977 - 2000 Ontario Hydro Technologies, Materials Integrity Department Toronto, Ontario, as Senior Engineer - Client development and relationship manager, project leader for following areas of work:

Component/ Material Performance/ Life Assessment

- Thermal Generation: Boiler tubes, superheater/reheater tubes, heat exchangers, feedwater heaters, turbines.
- Nuclear Generation: Pressure tubes, steam generators, heat exchangers, fire protection system piping, pumps and valves.
- Contact Performance: ABB contacts, gold plated/Aromat Relays (BND 5-8).
- Cable Performance: Pirelli Spain, Aluminum and Aluminum Cladded Steel Wires.

Advanced Materials

- Laser and plasma treated surfaces coatings.
- High temperature superconductors.

Corrosion of Materials (Thermal and Nuclear Plants)

- Recognition of corrosion mechanisms and extent of component deterioration.
- Effect of corrosion and deposition of corrosion products on component operating performance.

Simulating Operating Processes for Mitigation of Environmental Deterioration

- Thermal: fireside, steamside and waterside corrosion of boiler tubes, erosion/corrosion of feedwater heaters, effect of acid cleaning on tube performance.
- Nuclear: Crevice corrosion between fuel bundle and pressure tubes, effect of alloy microstructure on decontamination, PTCC corrosion and hydrogen ingress in Zr-2 and Zr-2.5% Nb pressure tubes, laboratory and in-situ assessment of ZrO₂ on pressure tubes, SCC and Pb-assisted SCC of alloy 600 and Alloy 800 steam generator tubes, characterization of sludge/deposits on steam generators tubes, microbial induced corrosion of fire protection piping system, effect of potash on carbon steel pipes.
- Waste Management: Effect of anion and cation resins on coated carbon steel tanks.
- HTSC / Metal Contacts.

Failure Analysis

- Routine and over 300 failure assessments of nuclear and thermal plant components.

1969 - 1970 University of Pavia, Pavia, Italy - Research Assistant (American Chemical Society)

- Thermodynamics: Miscibility gaps in binary systems containing hydrocarbons.

1955 - 1970 Center of Physical Chemistry, Academy of Science, Bucharest, Romania - Research Assistant

- Solid state reactions; High temperature oxidation of metals; Trouble-shooting for Romanian industry equipment performance.

EDUCATION:

1977- 1979 NRC Canada, Ontario Hydro, Toronto, Ontario
Industrial Post Doctoral Fellowship

1971- 1977 McMaster University, Hamilton, Ontario
Doctor of Philosophy in Material science- High Temperature Oxidation/Corrosion

1969- 1970 University of Pavia, Institute of Electrochemistry, Pavia, Italy
NRC Scholarship - Solid States Reactions ; Miscibility gaps in binary systems containing hydrocarbons

1955- 1960 University of Bucharest, Faculty of Chemistry, Bucharest, Romania

POST-FORMAL EDUCATION:

- Materials Science: MDI5; MD Consulting; Radiation Protection Course; Materials Research Society Course on HTSC
- Communication and Leadership: Creative Writing; Image and Self Projection; Excellence in Thinking and Writing; Language Workshop Seminars
- Computers: Introduction to Microcomputers
- ISO Training: Ontario Hydro Technology

AWARDS:

- Ontario Hydro TIPS Bronze Medal
- Third Place 1993 ASM International Metallographic Contest

LANGUAGES: Fluent: English, Romanian; Conversant: Italian, French

REFERENCES: Available Upon Request