

## **Neil Murdock** **Hydro-Electric Engineer**

### **Education**

1980/1985 Mechanical engineering University of Vermont, Rochester Institute of Technology  
Hydro Power Engineering and Development short course, Waterpower 87  
Bridgestone Tire and Rubber Co in house rubber engineering and repair seminars  
Goodyear Rubber Co, in house training, Rubber R&D  
Rema Tip Top, Munich, Polymer Development Program

1979- **GSA International** forebay cleanout, repair and stop log fabrication/installation for GSA International at Saugerties, NY

85/87 **Essex Turbine Co, Engineer** design, manufacturing, trouble shooting, field installation of Essex Turbines

87/89 **Obermeyer Turbine Co, R&D Engineer** design, manufacturing, installation and development of Obermeyer turbines and pneumatic crest gate systems

89/92 **Bridgestone Rubber Co, Northeast Territory Manager,** development and sales of Bridgestone inflatable rubber dams

92/94 **Faith Water Works Co, Sole Proprietor,** granted patent #5,244,309 and development of rubber crest gate system, Faith Water Works and Goodyear Tire And Rubber Co. Received \$100,000 grant from Department of Energy for same.

94 to present ,**Faith Water Works, Sole Proprietor,** due diligence surveys, field service/repair of hydro equipment including gates, runners, gearboxes, hydraulics etc for customers including Hydro Consulting and Maintenance Services, Spruce Mt. Design, Ridgewood Power, CHI/EnEI, Algonquin Power, Brascan, Quinebaug Associates, Sitka, Power House Systems, and numerous independently owned sites. Experience is heavier on the full Kaplan PURPA era units of both foreign and domestic manufacture. Have done rebuilds on older Francis units (A.C., S. Morgan, Leffel)

### **Partial Experience List**

\*Quarterly due diligence site review for 14 hydro sites in Maine belonging to Ridgewood Power

\*Numerous re-builds of Essex Turbine/Niagara Turbine hydro turbines

\*1.5 mW and 700 mW Neyrpic right angle drive turbines, runner and seal maintenance and re- building for Quinebaug Associates.

\*1.5 mW Allis Chalmers tube turbine bearing and seal re-build for Consolidated Hydro

\*3 mW Allis Chalmers double Francis turbine shaft removal and replacement for Consolidated Hydro

\*700 kW ESAC Kaplan turbine gear box removal and replacement for Algonquin Power

\*350 kW S. Morgan Smith wicket gate replacement for Turbine Generator Corp.

\*2 mW Obermeyer full Kaplan adjustment and repair of wicket gates for Environmental Power

\*4mW Allis Chalmers tube turbine, replacement of guide bearing, hydraulic cylinder, main seal, packing gland and wicket gate bearing/seal assemblies. Annual maintenance and inspection for McCallum Enterprises

\*30mW Impsa Francis turbine removal and replacement of broken wicket gates .for Sitka Industries

\*15mW Allis Chalmers 5 blade Kaplan turbine, dismantle and trouble shoot broken runner for FP&L