



Robert D. (Bob) Swift, P.Eng., FEC

Bob is a professional engineer with over 30 years of heavy industrial engineering experience. He has an extensive background providing technical and maintenance support for coal and gas-fired thermal generating plants, having spent over 20 years stationed in operating facilities. Bob has supervised electrical and instrumentation maintenance departments, as well as managed mechanical engineering design departments. He has also managed multi-discipline field technical support teams comprised of engineering and trades personnel. His project background includes leading multi-discipline engineering design, cost estimates, due diligence and independent engineer reviews, thermal plant capital improvements, and information systems projects. Bob has led the development of engineering department quality assurance programs, standards, and procedures, and has developed and managed project-specific quality plans for engineering design work.

Supervision & Leadership Managed Power profit centre with offices in Edmonton, AB and Vancouver, BC. This includes business planning, budget development and management, recruitment, staff development, quality assurance, project assignments, project management and business development.

Managed plant technical support teams including engineering, chemistry and lab, and instrumentation, electrical and electronics maintenance for multiple plants. Department sizes were as high as 40 personnel, including professional, trades and clerical staff.

Managed a mechanical and process engineering section for a large consulting firm. This included recruitment, staff development, quality assurance, project assignments and business development. Restructured the department into two sections and appointed a second manager once the size reached 70 personnel.

Managed a central capital engineering department including mechanical, civil / structural and chemical / environmental engineering functions. Started up a new department, including business planning, budget preparation, developing an organizational structure and position profiles, and recruiting.

Chaired plant Occupational Health & Safety Committees. Participated on safety audit teams at multiple plants.

Developed and conducted an orientation program for new generating station employees.

Interviewed and recruited employees at all levels from students to senior technical specialists and department managers.

Conducted performance appraisals for both union and professional staff.

Organizational Effectiveness Developed standard practices for engineering quality assurance, as well as project-specific quality management plans to support ISO9001 programme.

Developed engineering and project management process standards for in-house engineering services.

Developed process for the identification, evaluation and management of business risks, including the preparation and exercising of response and contingency plans.

Developed a corporate Emergency Operations Centre, including all related processes and procedures.

Developed a computerized system for preparing generating station operating and maintenance budgets.

Reviewed and evaluated maintenance management software, and provided selection recommendations.

Reviewed and evaluated planning and scheduling software, and provided selection recommendations.

Organized the drawings for two 25-year-old generating units, including identifying and copying approximately 1,400 drawings missing from the corporate drawing index and archives.

Organized an in-house engineering symposium for approximately 40 participants to develop improved working relations between head office and field engineering personnel.

Project Management

Power Island balance of plant engineering portion of the SaskPower Boundary Dam Unit 3 Refurbishment and Carbon Capture & Sequestration project.

Design of a General Electric LM6000 gas turbine test facility.

Preliminary engineering and capital cost estimates for multiple simple cycle gas turbine and co-generation facilities.

Removal of asbestos insulation, re-insulation and re-cladding of external ductwork for three 150 MW power boilers.

Replacement of power station inventory software including converting and combining inventory records totaling approximately \$40M.

Year 2000 transition business risk analysis and contingency plan development for a combined electric power and water utility, including coordination with external stakeholders (e.g. City of Edmonton, other utilities, Independent System Operator for Alberta).

In-house United Way fund raising campaign for a company of approximately 1,400 employees.

Maintenance management software users group conference for approximately 40 delegates from the United States and Canada.

IEEE Power Engineering Society Meeting for approximately 1,300 delegates from 33 countries. Also served as Technical Program Chair for the meeting.

Conversion of data from multiple sources to a common corporate work management system, including assigning new equipment identification numbers.

Replacement of plant telephone system with a new PBX system including direct in-dial (DID) and interactive voicemail.

Replacement of a 500 KVA station auxiliary transformer, including specification, procurement, installation, and commissioning.

Replacement of a plant elevator drive and controls, including specification, procurement, installation, and commissioning.

Design and installation of a satellite shop for instrumentation and electrical maintenance within a generating station, including design, contractor selection, and erection.

Emptying and cleaning of two plant site ash lagoons, including specification, contractor selection, and site supervision.

Replacement of an obsolete 5 KV, 1200 amp breaker, including specification, procurement, fabrication, and commissioning.

Contract Supervision Replacement of a 66 MW generator stator, including all acceptance testing.

Installation and commissioning of two coal handling plant ambient dust control systems.

On-site testing of lime injection for NOx control on a 150 MW coal-fired power boiler.

Installation and commissioning of steam sootblower piping and control system upgrades on three 150 MW power boilers.

Erection and commissioning of a flyash truck loading and sales facility.

Erection of a flyash classification facility.

Construction and paving of plant site roads and parking lots.

Erection and commissioning of a plant airlock building for truck loading and unloading, including an overhead monorail crane system.

Routine contract maintenance of station elevators and HVAC equipment.

Construction of a site ash lagoon, including construction of an earthwork dike and roadway.

Installation and commissioning of an on-line condenser cleaning system.

Replacement of an exciter transformer for a 150 MW generating unit.

Installation of a coal pulverizer hydraulic oil filtering and conditioning system.

Design and construction of plant employee lunchroom, washroom and shower facilities.

Technology Transfer Conducted a training program for plant mechanical trades staff regarding vibration analysis, and equipment alignment and balancing.

Managed memberships and associations with research organizations including the Electric Power Research Institute (EPRI) and the Fossil Operations and Maintenance Information Service (FOMIS).

Conducted training sessions for senior managers and directors regarding their role in the operation of the corporate Emergency Operations Centre (EOC).

Conducted demonstrations of new work management software system for senior managers and directors.

Technical Highlights Lead mechanical engineer for preliminary design of combined cycle plant.

Lead mechanical engineer for design review and capital cost estimate update for a supercritical coal-fired generating plant.

Performed independent engineering due diligence reviews for cogeneration, combined cycle, biomass-fired and coal-fired generating plants.

Developed and implemented a vibration analysis program for plant major rotating equipment.

Conducted generating unit outage investigations and prepared loss reports.

Developed a coal pulverizer predictive maintenance program based on journal roll lift and bounce.

Designed and installed a boiler feedwater pump flow recirculation system.

Developed plan and specifications for re-tubing the condenser for a 66 MW steam turbine.

Developed plan and specifications for re-tubing an evaporator.

Developed specifications for replacement drum level instrumentation on a 66 MW power boiler.

Developed specifications for purchase of industrial replacement motors up to 600 hp.