JAMES L. BICKHAM

Senior Power Plant Engineer and Technical Writer

SUMMARY

Start-Up/Commissioning: Commissioning of Combined Cycle, Coal, Nuclear power plants, and Ethanol producing plants.
Turnover Coordinator: Turnover of Combined Cycle and Coal power plant documentation.
Operations/Maintenance: Overhaul and refueling of U.S Navy Fast Attack Nuclear Submarines, and Commercial Power Plant Operations / Maintenance.
Training Program Development: Training program development for Coal and Nuclear power plants and Department of Energy (DoE): Job Task Analysis (JTA), Systematic Approach to Training (SAT),Instructional Systems Design (ISD), Training Systems Development (TSD) processes.
Technical Writer: Developed startup/commissioning, operations & maintenance manuals and procedures for Combined Cycle, Coal, Nuclear power plants, and DoE.
Instructor: Instructed classes in Mechanical Maintenance, Operations, Emergency Planning, and Safety Training, and On-the-Job Training (OJT) evaluator.
Emergency Planner: Program development, scenario development, drill coordinator, drill assessment, Emergency Plan Implementing Procedure writing and review.
Overseas Experience – Paiton Unit 7&8 Coal Fired Units Startup with Duke Fluor Daniel, Iraq O&M Project with Parsons Brinkerhoff

EXPERIENCE

Operations & Maintenance Training & Procedure Coordinator – Duke Energy- Buck Combined Cycle Power Plant Project (Two GE 7-FA Gas Turbines & One D-11 Steam Turbine) 5/10 to present

- Analyzed engineering documents to identify Operations & Maintenance training modules and procedures
- Developed training schedule
- Developed procedure review tracking system
- Designed animated power-point training presentations and procedure formats
- Developed Training Presentations and Plant Operating Procedures
- Presented power-point presentations to 30 operations and engineering personnel: BoP Systems, Integrated Operations, Gas Turbine & Steam Turbine Operations/Maintenance, Vogt HRSG, Graver Water Treatment, GE Osmonics Ultra-Filtration & Reverse Osmosis, Water Chemistry, Chemical Injection, Electrical Systems: High Voltage, 4160kV, 480kV, 125V DC, UPS, Cathodic Protection, and Diesel Generator

Lead Mechanical Startup Engineer – Constellation Energy – Combined Cycle Power Plant (Two Siemans W501G Combustion Turbines & One Siemens KN Steam Turbine) 8/09 – 5/10

- Lead System Engineer for commissioning, startup, and operation of Siemens KN Steam Turbine, Hydrogen Cooled Generator, Lube Oil Systems, and Electro-Hydraulic Control system
- Coordinated STG mechanical, electrical, and I&C work activities
- Verified STG and support system design in accordance with Siemens P&ID's
- Coordinated STG Lube Oil and Electro-Hydraulic Control systems flush and verified cleanliness in accordance with Siemens acceptance criteria
- Verified Steam Turbine HP/IP casing alignment
- Assisted Siemens Technical Advisor in the verification of ST valve actuators, Lube Oil, Lift Oil, and Seal Oil system interlocks and automatic controls according to logic diagrams

- Checked STG operating parameters during initial operation: bearing vibrations and temperatures, shaft position, lube oil pressures and temperatures
- Coordinated STG trouble shooting and maintenance activities
- Completed Siemens STG Commissioning turnover documentation

Training Manager – Parsons Brinkerhoff –Iraq Reconstruction Project; Four Simple Cycle Combustion Turbine sites (GE Frame 9, GE Frame-5, GE LM6000, Siemens V94, TM2500) - 8/08 to 5/09

- Coordinated training material development, classroom instruction, and On-the-Job-Training for four Republic of Iraq Ministry of Electricity electric power generating sites
- Coordinated development of Fundamental and Advanced Combustion Turbine Operations & Maintenance Training Modules
- Developed a Procedure Writer's Guide, Procedure Writing Introductory Course, Procedure Writing Practical Workshop Course and delivered classroom instruction to local nationals
- Supervised Parson's Brinkerhoff local national training staff

Lead Mechanical/Operations Commissioning Engineer – Verenium Bio-Fuels – Ethanol Producing Facility – 2/08 to 5/08

- Scoped P&ID's to determine startup system boundaries
- Developed Startup Schedule
- Developed Mechanical Startup/Commissioning documentation forms
- Reviewed System Flush Procedures, Startup Operating Procedures, and Lock-Out Tag-Out Procedure
- Supervised Verenium Operations staff and craft mechanical personnel involved in startup/commissioning activities
- Participated in system turnover walkdowns with construction and engineering personnel
- Directed initial system startup and flushing activities
- Assembled system turnover documentation packages

Procedure Writer/Operations Training Program Developer - DoE - Hanford Radiological Waste Vitrification Project- 7/07 to 2/08

- Reviewed design basis documents, P&ID's, Process Flow Diagrams and System Descriptions
- Conducting Job Task Analysis in preparation for training facility operations employees
- Developed Operations Procedures and Operator Training for Low Activity Waste and High Level Radioactive Waste process systems

Owner Representative: – TED Consulting – Wisconsin Energy Power, Port Washington Project– Combined Cycle Power Plant (2 GE Frame 7FA Gas Turbines & One GE D-11 Steam Turbine) – 8/04 to 7/05

- Over sight of contractor commissioning and start-up activities to ensure procedural and contractual compliance
- Making recommendations for improvement of existing commissioning plans and procedures
- Coordinated commissioning activities between contractor and GE commissioning personnel and additional vendor/suppliers
- Conducted plant system design reviews and verification
- Applied specialized knowledge of startup methods to the solution of specific problems
- Provided technical guidance and on-the-job training to subordinates and WE Energies operations personnel
- Verification of pump alignments, system cleanliness, steam blow targets, and equipment operating efficiency

Lead Mechanical Commissioning Engineer: – Duke/Fluor Daniel – Hanging Rock Energy Facility– Combined Cycle Power Plant (Four GE Frame 7FA Gas Turbines & Two GE D-11 Steam Turbines) – 9/02 to 7/03

- Supervised Commissioning, Operations, and Mechanical Craft personnel
- System turnover walkdowns with Construction Engineering and client

- *GE Frame 7FA Gas Turbine/Generator* lube oil flush, generator air test, CO2 purge, hydrogen loading, Wash Water startup and flush
- *Alborg Heat Recovery Steam Generator (HRSG):* hydro testing, chemical cleaning
- *Graver Water Treatment:* System commissioning/startup and operation
- *Aqua-Tech Demineralized Water System:* commissioning/startup and operation
- *Balance of Plant Systems:* Feedwater, Condensate, Circulating Water, Chemical Injection and Natural Gas Commissioning/Startup, and Operation
- *GE D-11 Steam Turbine/Generator:* STG lube oil flush, EHC flush, Generator air test, CO2 purge/hydrogen loading
- *Steam Blow:* installation of temporary steam blow piping and MSV/CRV blow kits, quench water, monitoring steam blow, removal of temporary piping, reinstallation of steam piping to original design

Construction Engineer /Lead Mechanical Commissioning Engineer: – Duke/Fluor Daniel –Washington Energy Project – Combined Cycle Power Plant (Two GE Frame 7FA Gas Turbines & One GE D-11 Turbines) – 10/01 to 7/02

- *Construction Engineering (Fluor Constructors);* directed construction mechanical craft personnel in the completion of mechanical system piping and supports in accordance with isometrics and P&ID's, coordinated system walkdowns with client, directed craft personnel in completion of punchlist items, compiled System Turnover Documentation Packages
- Supervised Commissioning, Operations, and Mechanical Craft personnel
- System turnover walkdowns with Construction Engineering and client
- *GE Frame 7FA Gas Turbine/Generator* lube oil flush, generator air test, CO2 purge, hydrogen loading, Wash Water startup and flush
- *Alborg Heat Recovery Steam Generator (HRSG):* hydro testing, chemical cleaning
- *Graver Water Treatment:* System commissioning/startup and operation
- *GE Demin-Water System*: System commissioning/startup and operation
- *Balance of Plant Systems:* feedwater, condensate, circulating water, chemical injection and natural gas commissioning/startup, and operation
- *GE D-11 Steam Turbine/Generator:* STG lube oil flush, EHC flush, Generator air test, CO2 purge/hydrogen loading
- *Steam Blow:* installation of temporary steam blow piping and MSV/CRV blow kits, quench water, monitoring steam blow, removal of temporary piping, reinstallation of steam piping to original design

Mechanical Commissioning Engineer:– Duke/Fluor Daniel – Whiting Clean Energy Project – Combined Cycle Power Plant (2 GE Frame 7FA & One GE HP/LP Steam Turbine) – 12/00 to 9/01

- Commissioning pre-planning: scoped P&ID's and Electrical One-Line Diagrams to determine system boundaries and sub-systems, developed commissioning schedule, developed commissioning procedures and guidelines
- Mechanical commissioning; GE Frame 7FA Gas Turbine & GE Steam Turbine lube oil flushes, Alborg HRSG commissioning, balance of plant system commissioning, HRSG chemical cleaning, hydro-laze of feedwater and HP steam piping, system walkdowns to identify punch list items, directing mechanical craft personnel during the installation of temporary steam blow piping and MSV blow kits, monitoring steam blow, reinstallation of permanent steam piping and MSV's to original design
- Trained client operations and mechanical personnel(OJT)

Mechanical/Operations Technical Writer: – GE Aero Energy Products – Combined LM2500 Gas Turbine/Steam Turbine Generator Packages and Auxiliary Equipment and Services for normal operation of Meyer Werft and Chantiers L' Atlantique luxury cruise liners – 11/00 to 12/00

- Developed Startup and Commissioning procedures for Meyer Werft GTV: "Radiance of the Sea" cruise liner and Chatiers L' Atlantique S31; "Infinity" cruise liner
- Procedure content included system boundary identification, system description, system walkdown checklist, and startup/commissioning guidelines
- Developed Steam Blow and Boiler Chemical Cleaning guidelines for each project

Mechanical Commissioning Engineer: – Duke/Fluor Daniel – Main Independence Project - Combined Cycle Power Plant (2 GE Frame 7FA & One GE D-11 Steam Turbine) – 1/2000 to 5/2000 – under contract

- Developed plant operating procedures
- Balance of plant mechanical start-up engineer: ABB HRSG's, Feedwater, Condensate, Natural Gas, Closed Cooling Water systems
- Supervised mechanical craft personnel
- ABB HRSG chemical cleaning
- Steam Blow
- System walkdowns to identify mechanical punch-list items
- Trained client operations and mechanical personnel (OJT)

Mechanical Commissioning Engineer and Turnover Coordinator:– Duke/Fluor Daniel – Paiton Power Phase I (Dual 800 Megawatt) Coal Power Plant (Paiton, East Java, Indonesia) – 1/98 to 9/99 – under contract

- Developed startup/commissioning and operating procedures
- Interfaced with Mission Energy (Owner) engineers in the approval of start/up commissioning procedures
- Balance of plant mechanical startup/commissioning engineer
- Training of Indonesian national operations and maintenance personnel (classroom, lab and plant system walk-down)
- Turnover Coordinator – supervised Indonesian nationals in development of Turnover Packages which included all construction and startup/commissioning documentation for power plant systems, buildings, and areas; supervised Indonesian national construction personnel in completion of electrical, mechanical, and civil construction punch-list items; coordinated completion of Startup mechanical and electrical punch-list items; interfaced with Owner electrical and mechanical engineers to resolve outstanding Construction and Startup punch-list items; tracked completion of all punch-list items

Technical Writer: - Duke/Fluor Daniel - Paiton Power Phase I (Dual 800 Megawatt) Coal Power Plant, East Java Indonesia (Charlotte, NC office) – 11/96 to 12/97 - under contract:

- Developed Training Program for Indonesian plant operators consisting of lesson plans, visual aids, and test banks
- Developed Commissioning (Initial Startup and Testing) and Operating (System Startup, Normal Operations, Abnormal Operations, Shutdown, and Alarm Response) Procedures
- Developed Plant Operations & Maintenance Manual
- Developed Plant Environmental Compliance training program

ADDITIONAL EMPLOYMENT HISTORY

Public Service Electric & Gas: ***Emergency Planner*** – Salem/Hope Creek Nuclear Plants – 6/96 to 11/96
DoE: ***Training Program Developer*** – Rocky Flats DoE Facility – 3/94 to 8/95
Commonwealth Edison: ***Emergency Planning / Op's Procedure Writer*** – Dresden Station - 1/92 to 12/93
Portland General Electric: ***Procedure Improvement Program Coordinator*** –Trojan Plant – 3/91 to 11/92
Pacific Gas & Electric: ***Emergency Planning Program Assessment*** PG&E Corporate – 11/90 to 3/91
Portland General Electric: ***Training Instructor/Developer*** – Trojan Plant – 1/90 to 11/90
Arizona Public Service: ***Radiological Health Technical Writer*** – Palo Verde Plant – 9/89 to 1/90
Portland General Electric: ***Training Instructor/Developer*** – Trojan Plant –9/88 to 7/89
Philadelphia Electric Co.: ***Outage Planner / Work Coordinator*** – Peach Bottom Plant - 9/87 to 9/88
Gulf States Utilities: ***Radiological Safety Training Instructor*** – River Bend Plant –6/87 to 9/87
Tennessee Valley Authority: ***Mechanical Procedure Writer*** – Sequoia Plant – 9/86 to 6/87
Portland General Electric Co.: ***Training Developer*** – Trojan Plant – 1/86 to 9/86
South Carolina Elec.& Gas: ***Outage Planner / Work Coordinator*** – VC Summer Plant – 9/85 to 12/85
Public Service Electric & Gas: ***Outage Planner / Work Coordinator*** – Salem Plant – 10/84 to 3/85
Georgia Power: ***Recirc Piping Replacement Work Coordinator*** – Plant EI Hatch – 12/83 to 7/84
Louisiana Power & Light: ***Start-Up/Commissioning, Operations*** – Waterford III – 7/81 to 12/83

Florida Power & Light: ***Operations, Outage Work Coordinator*** – Turkey Point – 1/76 to 7/81
Ingalls Shipbuilding: ***Navy Nuclear Submarine Overhaul & Refueling*** –1/73 to 1/76

EDUCATION / TRAINING

Louisiana State University, Southeastern Louisiana University – 96 hours in general studies
NAVSHIPS 108 qualification - Ingalls Shipbuilding
Vendor Training: Power Plant Systems, First Responder Medical Training, Continued Instructor Training, Technical Writing, INPO Training Instructor Certification Course, Performance Based Training Development Course
Utility Training: Completed various operations and maintenance utility required courses

MILITARY EXPERIENCE

United States Army 9-69 to 9-71
Vietnam Veteran; served with 101st Airborne Division; Rank at discharge Sergeant E-5 combat infantry platoon leader.

Notable Achievements:
- Bronze Star: Meritorious achievement while participating in ground operations against hostile forces
- Air Medal: Meritorious achievement while participating in aerial flight against hostile forces
- Combat Infantry Badge: Participating in ground operations under hostile enemy fire
- Army Commendation Medal: Exceptional meritorious achievement in the Republic of Vietnam