

## **BOBBY P. FAULKNER**

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### **EDUCATION AND HONORS**

B.S. Metallurgical Engineering, 1960, Colorado School of Mines

M.S. Metallurgical Engineering, 1961, Colorado School of Mines

Associate Degree in Instrumentation and Control, 1967, Chattanooga State Technical Institute

Business Law, 2 years, correspondence course, 1964

General Electric, 1966, Applications and Systems Programming

Queen's University, 1968, Statistical Design of Experiments and Process Optimization

Pennsylvania State University, 1970, Design of Milling Circuits

Who's Who in Finance and Industry, 1979/1980

Who's Who, Registry of Outstanding Professionals, 2004/2005

Colorado School of Mines, 1975, Economic Evaluation and Investment Decision Methods

Numerous short courses in Management, Accounting, Patent Law, Contract Law

### **PROFESSIONAL AFFILIATIONS**

Society of Mining Engineers

### **SUMMARY OF EXPERIENCE**

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|----------------|--|
| 2009 – Present | Retired, providing consulting services to companies in U. S. and overseas related to mineral processing, pyro-metallurgical processes and development. Senior Associate with Sage Geotech.   |
| 1995 – 2009    | Manager of Pyro Testing Process Evaluation, Metso Minerals, responsible process development and evaluation for all projects related to mineral and waste processing. Directed start-up of Iron Ore plants, developed tire pyrolysis system, directed process development projects for phosphate rock and steel mill waste. |
| 1991 – 1995    | Manager of Business Development and Technology, Svedala Industries, responsible for developing business opportunities and acquisitions related to the Svedata pyro business area, evaluation acquisitions candidates, and managing the Testing and Development for the Svedala Pyro Business Area.                         |
| 1988 – 1991    | Manager of Pyro Systems, Allis Mineral Systems, responsible for engineering, marketing of pyro systems equipment, world-wide, including: Grate-Kiln Systems; Grate-Car (Ported Kiln) Systems; Rotary Dryers;   |

Fluid-Bed Dryers and Roasters, High Intensity Magnetic Separators and all related equipment.

- 1984 – 1988 Vice President of Engineering Fluidcarbon Division of Allis-Chalmers, responsible for the development of a coal water slurry fuel technology, design engineering operational plant testing of the coal-water production and burning, marketing of the technology to potential customers.
- 1978 – 1984 Associate Director Process Systems, Advanced Technology Center, Allis-Chalmers, directed the research and development of process equipment and technology. Developed several patents listed below.
- 1975 – 1978 Manager Process Systems, Advanced Technology Ceneter, Allis-Chalmers. Responsible for managing the research and development of process systems and equipment for Allis-Chalmers Corp. several patents resulted. Assisted in the development of a coal-gasification technology, for Allis-Chalmers based upon a ported rotary kiln technology
- 1971 – 1975 Associate Manager Metallurgical Division Battelle Memorial Institute, developed and managed contract research for private and government agencies. Directed a two and one half year geophysical exploration for a company in Brazil, conducted economic feasibility for several countries and U. S. private companies.
- 1965 – 1971 Assistant Mill Superintendent Cities Service, Copperhill, Tennessee, responsible for the process metallurgy, labor relations, quality control, and maintenance of the milling and beneficiation operation.
- 1961 – 1965 Metallurgical Engineer, Cities Service (formerly Tennessee Copper Co.). Responsible for the development and implementation of a computer control model for controlling the process metallurgy of a flotation plant.. Developed and implemented the first computer control system for a massive sulfide flotation plant.

**PATENTS: (1976 to present)**

- 6,409,978 Method of removing impurities from mineral concentrates
- 6,221,329 Pyrolysis process for reclaiming desirable materials from vehicle tires
- 6,090,353 Method of removing impurities from mineral concentrates
- 4,461,674 Apparatus for recovery of different weight fractions of oil from shale
- 4,412,909 Process for recovery of oil from shale
- 4,405,438 Process for recovery of different weight fractions of oil from shale
- 4,338,079 Method and apparatus for subjecting mineral particles to gas flow
- 4,270,899 Roller grate material bed transporting and heat exchange apparatus
- 4,269,593 Roller grate material bed conveying and heat exchange apparatus providing plural bed depths
- 4,195,986 Selective reduction of nickel laterite ores

- 4,188,287 Slow speed wedge bar flotation mixing device
- 4,182,498 Recovery of round metal granules from process sludge
- 4,012,314 Treating coal liquefaction product oil

## **STRENGTHS**

Mr. Faulkner has 48 years of experience in the metallurgical industry. He has 13 patents related the mineral processing, equipment and control. Areas of expertise include mineral beneficiation, pyro-metallurgical design and testing, operations and control systems. Extensive plant operations background in management; plant start-up; and evaluation of plant operations. Mr. Faulkner has traveled extensively in the Far East, Middle East, South America and Europe working with governments and private industry on mineral related projects. He has presented and published some 40 technical papers. Presently on the technical advisory board for JDC LLC in Florida and Pyreco, LLC in the UK; both are kiln based patented processes for phosphates and tire recycling. The original development work was conducted by Mr. Faulkner. Presently both technologies are being commercialized and a plant being designed for construction to start early next year. Mr. Faulkner has designed and built oil shale pilot plants; has oil shale process patents; and has been on engineering teams evaluating oil shale projects from technical and economic perspectives.