

**JEROME APT, JR., P.E.**  
**Consulting Engineer**

**Experience**

Mr. Apt saw service as an officer in the Corps of Engineers, United States Army from 1943 until 1946, serving in action in both the European and Pacific Theaters of Operations. His last assignment was as Island Engineer of Okinawa, overseeing the start of the construction of the permanent military base on this strategic island. This began Mr. Apt's professional career which has spanned a period of almost sixty (60) years of a varied engineering spectrum.

Returning to civilian life, he completed his engineering degree at Carnegie Institute of Technology, and in February 1947, accepted a position as a maintenance and construction engineer for Monsanto Chemical Company, Plastics Division, Springfield, Massachusetts. His most high profile assignment was project engineer/supervisor for the construction of the first formaldehyde plant using the methanol rich process that was designed, built and placed into production in the United States.

In 1950 he became chief engineer for Mechanical Industries, Inc., Pittsburgh, PA. This company designed, built and installed unique smoke, fume and dust control equipment for the asbestos, cement, steel and mining industries. He supervised the design and installation of the pneumatic air handling/separation/filtering systems for all the new asbestos mills constructed during the early 1950's in the Thetford Mines/Black Lake area of Quebec. He was the designer and co-inventor of the first fume control system for an electric steel furnace. It was installed at Timken Roller Bearing Co., Canton, Ohio, placing the entire furnace under a slight vacuum to enable the collection of fumes. This resulted in both the collection of meltdown fumes and a significant reduction in heat time, reducing production costs. Dust & fume control systems were also designed and installed for companies such as Ford Motor, H. J. Heinz and Riverside Cement.

In 1956, Mr. Apt founded Industrial Gases, Inc, a company specializing in the use and distribution of liquefied petroleum gases for use as both a non-polluting motor fuel and a substitute for acetylene gas in the metalworking industry. The company also distributed oxygen & acetylene to the metal working industries. During this period his company developed novel equipment to effect the conversion of both gasoline and diesel fueled engines to operate on LP-Gas. A unique method of preventing down-hole fires & explosions in wildcat gas wells was developed for a large well drilling company, utilizing LP-Gas in place of drilling air. Industrial Gases was the distributor for Gulf Oil Company's LP Gas for Western Pennsylvania, Northern West Virginia and Southeastern Ohio. During this period, Mr Apt and several of his employees ran training schools for LP Gas personnel located throughout their distribution area in the safe use and handling of LP Gas.. In 1966 the company was purchased by Uгите Gas of Philadelphia. During this period Mr. Apt served as a national director of the National LP-Gas Association and as President of the Pennsylvania LP-Gas Association, of which he was also a board member for several years. As a member of the Pennsylvania Boiler Advisory Board, Mr. Apt helped develop the rules and regulations for the safe handling of LP Gas in Pennsylvania.

From 1966 until 1991, Mr. Apt was a principal in an engineering company that performed engineering services for companies in the energy industry. As a consultant to Duquesne Light Company, he put into place a complete tracking system to follow the construction and quality assurance program for Beaver Valley #1 Nuclear Power Station. He served as a member of their Off-Site Review Committee for several years. He and associates served the coal-mining industry throughout Appalachia performing property evaluations, designing total reserve mining plans and cleaning plants.

In the 1980's Mr. Apt conceived and was the principal developer of a remote controlled coal mining system, which retrieved coal from abandoned high walls without exposing personnel to the hazards of the underground environment. This system utilizes a vacuum pneumatic conveying system to remove all coal extracted by the remote controlled continuous mining machine negating the need for any dust suppression within the mining entries. This project enabled the extraction of coal to a penetration of 1000 feet in an 8-foot wide entry at the rate of 500 tons of coal per shift, an unheard of rate at that time.

From 1991 to December 2001, Mr. Apt was Senior Mechanical Engineer with Concept Engineering Group, Inc., and Corporate Secretary, designing, testing and fabricating novel non-destructive trenching techniques. He is still actively retained as engineering consultant.

Mr. Apt continues to serve as an expert witness and consultant to attorneys for both plaintiffs and defendants in legal actions involving machinery in his areas of expertise and his extensive field experience.

## **BOARD ACTIVITIES**

Served as a member of The Boiler Advisory Board to the Industrial Board, Pennsylvania Department of Labor & Industry for twenty-five years and chairman of that board for twelve years.

Served as a member of the Board of the Pennsylvania LP Gas Association for several years and one term as its President.

Served as a member of the Board and of the Executive Committee of the University Of Pittsburgh medical malpractice insurance companies from 1976 until 2000.

Served as a member of the Board of Visitors, School of Education, University of Pittsburgh for several years and co-chaired the School of Education's fund raising activity for the University's Campaign for the Third Century.

## **Technical Societies**

American Society of Mechanical Engineers-Life Member  
National Society of Professional Engineers-Life Member  
Pennsylvania Society of Professional Engineers-Life Member

## **Significant Patents**

3,801,440 Leak Detection System For A Nuclear Reactor  
3,870,078 Sampling Slide Valve  
4,323,280 Remote Controlled High Wall Coal Mining System  
5,487,229 Apparatus for Pneumatic Excavation  
5,860,232 Mobile Safe Excavating System  
5,966,847 Pneumatic Excavator  
6,158,152 Pneumatic Excavator

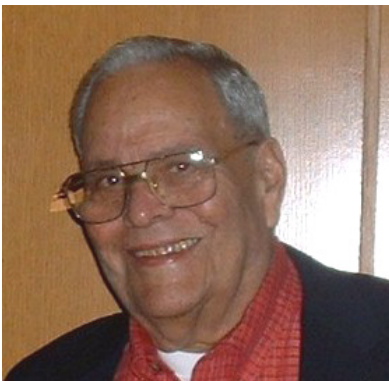
## **Registration**

Pennsylvania-1952-#749-E  
Kentucky-1975-#9298

## **Education**

B.S. Mechanical Engineering, Carnegie Institute of Technology, 1947.

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1/2003

**Jerome Apt, Jr., P.E.**  
**Rate Schedule – effective January 1, 2007**

Hourly rate – divided into 15 minute increments                      \$175.00/hour

Court Time – each court day charged as 5 hours                      \$875.00/day

Out of pocket expenses – charged at actual cost, no overhead added.

Timesheets submitted on a weekly basis with monthly summaries.

Expenses sheets submitted monthly with attached receipts.