RESUME OF ROBERT BARRON, P.E.

Kentucky P.E. Reg. No. 12023

Address: 4033 Leitchfield Road (Hwy 54), Owensboro, KY 42303 Office Phone: 270-686-8525

Education: UNIVERSITY OF EVANSVILLE EVANSVILLE, IN
Earned Master of Science Degree in Engineering Management May 1982.

LOUISIANA TECH UNIVERSITY RUSTON, LA
Earned BSEE in Computers and Controls in November 1969. Curriculum oriented toward Computer Interface Design and Control Theory. Worked on NASA research project designing communication links from the ground to a space station.

Employment Experience

TONY HUFF & ASSOCIATES (THA) ENGINEERING SOLUTIONS – OWENSBORO, KY
Principle Engineer – April 2003 to Present – Support the Company in the areas of natural gas consulting and construction management. Client list and services provided include:

Atmos Energy – Chattahoochee River Crossing at Fort Benning, GA had extensive erosion, exposing the 12" and 8" river lines. Visit the site to determine Scope of Work and prepare the Scope of Work. Provide environmental determinations. Prepare the U.S. Army Corps of Engineers pre-construction notification form, Nationwide Permit 47 for Savannah District and the U.S. Army Corps of Engineers Nationwide Permit 47 for Mobile District. Prepare the National Pollutant Elimination Discharge System Construction General Permit. Request a Georgia Stream Buffer Variance. Prepare an erosion, sedimentation and pollution control plan. Certify all work was done in accordance with construction plans and permits.

Kaiser Trading – Provide weekly progress reports on various pipelines including Rockies-West and SESH. At the beginning of the project, expected in-service dates are forecasted utilizing several methods and updated as required. Data obtained from FERC documents, reconnaissance and other sources.

Kern River Gas Transmission – Create Dig reports for over 200 digs on the system in support of a Special Permit. Collect data from ILI reports, company inspections, company pipe data, construction contractors, inspection companies, and pictures and develop a two page report discussing issues found and action taken. The project was completed in a very compressed time frame.

Kentucky Blue Gas – Develop a flow model for the gathering system and used results to design two skid mounted gas compressors in their gathering fields. Integrate three new compressor packages in their existing gas processing plant to double the gas throughput. Design a delivery station into a major transmission line including measurement station, compressor and pulsation filter.

GulfStar Energy – Provide design engineering, cost estimation and project management for new gas supply in Butler and Warren Counties, Kentucky, associated pipeline and measurement facilities. Facilities include pipeline, measurement, gathering, compression, dehydration and nitrogen rejection. Scope of work includes: flow modeling, horsepower requirements, design, equipment selection, economic analysis, and project management.

Boardwalk Pipeline Partners – Provide onsite review of HCA's. Determine if they are HCA's and if they are viable candidates for Direct Assessment.

Boardwalk Pipeline Partners – Provide design analysis, material review and on site Integrity Management review of new facilities in support of a DOT MAOP waiver at Carthage Compressor Station near Carthage, TX and at Vixen Compressor Station near Vixen, LA. Determine the MAOP for all material in the high pressure piping; compare the material receiving reports vs. bill of materials, examine all invoices for material not in the bill of materials, visually inspect all pressure vessels and stamped components for the MAOP. Produce reports stating the discrepancies or design changes from the construction drawings

Gulf South Pipeline – Provide the design to replace over twenty single wall tanks at various locations in Louisiana, Mississippi and Texas with double walled tanks. Project included condensate, waste water, glycol, waste oil, new oil, and service oil tanks. Several locations required transfer pumps and sumps with pumps. Provide design and cost estimates for high pressure piping modifications at Carthage Junction Compressor Station near Carthage, TX.

Texas Gas Transmission – Provide cost estimate, design, material procurement, acoustical and thermal studies, and construction management for new 36" discharge header and connection to five reciprocating compressors and one Solar Mars turbine at the Greenville Compressor Station in Mississippi.

Orbit Gas Storage – Provide engineering support, cost estimation and project management for grass roots underground storage development in Hopkins County, Kentucky, associated pipeline and measurement facilities. Facilities include pipeline, measurement, gathering, compression, dehydration. Scope of work includes: design, route selection, equipment selection, economic analysis, and project management.

Northern Natural Gas – Gather over 75 facts on 417 individual HCA's used to produce segment review documents of two or three pages length for each HCA. The segment review document provides a wealth of useful information about each HCA that is not available in any other useable format.

Texas Gas Transmission – Provide MOAP determination for fabrication, compressor stations, and measurement facilities throughout the entire system. Perform an up-rate study on the Western Kentucky System consisting of many small diameter lines and delivery stations. These lines were installed in the 1920's and have been updated over the years. Write portions and edit the Engineering Manual.

ALCAN Primary Metals – Provide study to determine the jurisdiction of a 16-mile pipeline system and gas field.

Southern Star Gas Pipeline – Provide engineering consulting and construction management services for $10 million corporate office.

Pilot Gas – Provide system design, pipeline safety, and mapping services for new gas production and gathering system.

EN Engineering – Perform risk assessments of Northern Natural Gas's compressor stations.

WILLIAMS GAS PIPELINE – OWENSBORO, KY

Director of Engineering – Nov. 1999 to Feb. 2003 – Directed the Engineering Department for Texas Gas and Central Gas Pipeline. The staff was responsible for design and construction of all pipeline, storage, measurement, and compression facilities from Louisiana to Ohio and Wyoming to Missouri. The Construction budget for the two companies averaged $100,000,000 a year. The staff consisted of 80 engineers and drafters. Work included numerous measurement and regulation facilities using, ultrasonic, orifice, turbine, and displacement type meters; pipeline replacements consisting of diameters from 4 inch to 36 inch and from several hundred feet to several miles; replacement horsepower from several hundred to 15,000 horsepower; grassroots compressor stations and pipelines. The largest pipeline project, Western Frontier, consisted of 400 miles of 30 inch pipeline. In 2002 we in designed and constructed eight measurement stations and laterals for power plants ranging in size from

53,000 Dkt/d to 204,000 Dkt/d. We also designed and constructed numerous receipt and delivery stations.

Director of Plant and Design – Jan. 1998 to Nov. 1999 – Directed the Plant Design group for five natural gas pipelines responsible for the design of all compression and storage facilities. The group designed compression projects from border to border and coast to coast. Work included depleted gas reservoir and salt cavern storage field expansions; dehydration and desulphurization facilities; small 300HP skid mounted reciprocating compressors to multiple 15,000HP turbines.

Director of Engineering – April 1995 to Jan. 1998 – Directed the Engineering Department for Texas Gas Transmission Corporation. The staff was responsible for design and construction of all pipeline, storage, measurement, and compression facilities from Louisiana to Ohio. Responsible for over 150 individual projects each year ranging from $40,000 to $15,000,000.

TEXAS GAS TRANSMISSION CORPORATION – OWENSBORO, KY
Director of Engineering – April 1989 to April 1995 – Director of the Engineering Department for Texas Gas Transmission Corporation. The staff was responsible for design and construction of all pipeline, storage, measurement, and compression facilities from Louisiana to Ohio. The average yearly construction budget was $40,000,000. Planned, routed and acquired land and permits for a 155 mile, 30 inch pipeline and compressor station including Mississippi River crossing. The Citizens Gas Project completed in 1989 consisted of a crossing of the Ohio River and 70 miles of 20 inch pipe, 78 miles of 16 inch pipe, and two 12 inch orifice meter runs.
General Manager – Nov. 1987 to April 1989 – Leader of the Engineering Department for Texas Gas Transmission Corporation. The staff was responsible for design and construction of all pipeline, storage, measurement, compression facilities, telecom, SCADA, and computer systems. In 1988, traveled to Japan to assist Sumitomo with the design, routing, measurement and operation of the Japex Pipeline Project consisting of 158 miles of 18 inch pipe, 30 miles of 6 inch pipe and 21 mile of 4 inch pipe.

Manager Electrical Engineering – Jan. 1982 to Nov. 1987 – Responsible for the design, construction, and maintenance for all electrical power, control lighting, station automation and data acquisition systems; computer data processing, control, and data acquisitions systems, communication systems including telephone, VHF radio and microwave. Responsible for training and testing field electrical personnel and initiating routine maintenance programs.

Manager of Electrical Services – Nov. 1975 to June 1982 – Responsible for all electrical and computer maintenance and training for entire pipeline system.

Senior Engineer – July 1974 to July 1975 – Responsible for all electrical design and installation of engine and computer facilities at Midland III Compressor Station.

Engineer – July 1972 to July 1974 – Working on various field electrical projects. These include power, control, automation, computer, and pneumatic systems.

Junior Engineer – March 1970 to July 1972 – Designed and constructed computerized station monitoring systems at Slaughters, KY and Dillsboro, IN Compressor Stations.