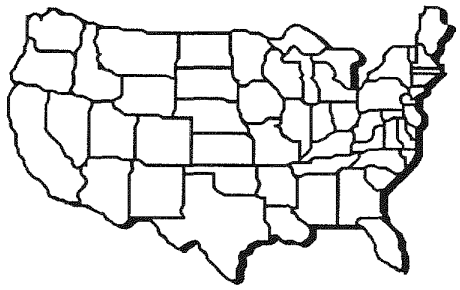
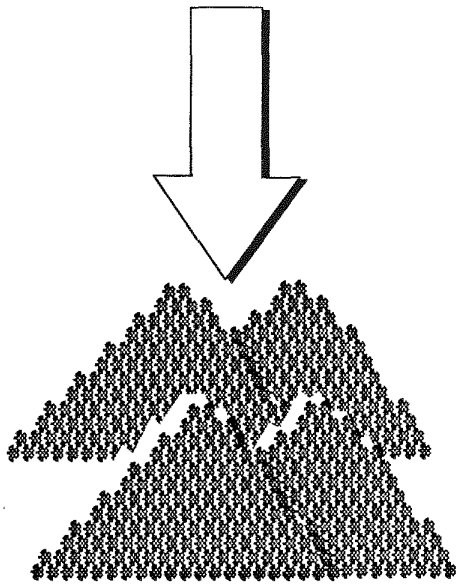
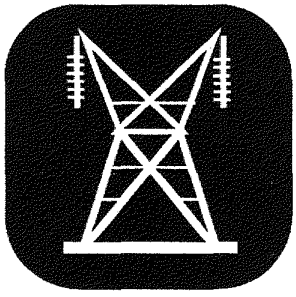
50
11-16-89 (2)







The Directory of U.S. Coal & Technology Export Resources

DO NOT MICROFILM
COVER

U.S. Department of Energy
Assistant Secretary for Fossil Energy
Office of Planning and Environment

October 1989

BUTION OF THIS DOCUMENT IS UNLIMITED

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

For further information about this publication or related U.S. DOE programs please contact:

Ms. Sue Ellen Walbridge, FE-4
Project Manager
Office of Planning and Environment
Office of Fossil Energy
U.S. Department of Energy
Washington, DC 20585

For inclusion in this directory free of charge send company name, address, and contact to:

The Directory of U.S. Coal & Technology Export Resources
Technology & Management Services, Inc.
20201 Century Boulevard
Germantown, MD 20874
(301) 353-0102

Notice:

This publication was prepared under a contract to the United States Government. Neither the United States nor the United States Department of Energy, nor any of their employees, nor any of their contractors, subcontractors, or their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibility for the accuracy, completeness or usefulness of any information, product or process disclosed or represents that its use would not infringe privately owned rights.

Printed in the United States of America.

This report has been reproduced directly *from* the best available copy.

Available to DOE and DOE contractors from the Office of Scientific and Technical Information, P.O. Box 62, Oak Ridge, TN 37831; prices available from (615) 576-8401. FTS 626-8401.

Available to the public from the *National Technical Information Service*, U.S. *Department of Commerce*, 5285 Port Royal Rd., Springfield, VA 22161.

Price: Printed Copy A13
Microfiche A01

The Secretary of Energy
Washington, DC 20585

October 1989

The U.S. Department of Energy (DOE) and its Office of Fossil Energy is pleased to present the first edition of *The Directory of U.S. Coal & Technology Export Resources*. This directory has been prepared in response to the U.S. Government's and U.S. coal and coal technology industries' resolve to support the evolution of a more aggressive approach to a national policy towards the export of coal and coal technology.

The U.S. policy on coal and coal technology trade now includes an emphasis on export marketing strategy implementation. This entails first, the development of a thorough understanding of the needs of potential customers and markets and then, providing products and services to meet these needs.

A principal aspect of this emphasis is the pursuit of the "teaming" approach to marketing. Conceptually, this involves the teaming of the U.S. fossil energy industry sectors i.e., coal producers, engineering and construction firms, equipment manufacturers, financing and service organizations.

This directory provides the information necessary to connect with specific private sector entities in the U.S., across the range of pertinent industrial sectors covered by the coal and technology industries. The listed private sector entities support the objectives reflected in this emphasis and want to aggressively participate in international commerce.

On their behalf we invite you to contact the companies included in this directory with your interest in exports or teaming.

James D. Watkins
Admiral, U.S. Navy (Retired)

LIMITED

DOE/FE--0141

DE90 001792

The Directory of U.S. Coal & Technology Export Resources

U.S. Department of Energy
Assistant Secretary for Fossil Energy
Office of Planning and Environment
Washington, DC 20585

October 1989

MASTER

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

TABLE OF CONTENTS

		Page
	PREFACE	*iii*
I.	INTRODUCTION	1
II.	COAL RESOURCES	5
	• Coal Derivatives	5
	• Coal Exporters	16
	• Coal Mining	35
III.	TECHNOLOGY RESOURCES	61
	• Advanced Utilization	61
	• Architecture/Engineering	84
	• Boiler Equipment	106
	• Emissions Control and Waste Disposal Systems	121
	• Facilities Construction	135
	• Mining Equipment	152
	• Power Generation Systems	169
	• Technical Publications	174
	• Transport Equipment	176
IV.	SUPPORT SERVICES	183
	• Coal Transport	183
	• Facilities Operations	199
	• Freight Forwarders	216
	• Technical Consultants	221
V.	FINANCING AND RESOURCE PACKAGING	251
	INDEX BY COMPANY NAME	259
	INDEX BY PRODUCT/SERVICE CLASSIFICATION	261

DO NOT MICROFILM
THIS PAGE

PREFACE

This directory reflects a consolidated effort by U.S. industry and the U.S. Department of Energy (DOE) to list and index readily available current export sources for U.S. coal and coal related technologies. This effort is a direct result of industry suggestions from a series of government/industry public meetings on international coal and technology trade opportunities. The directory is part of an ongoing government effort to cooperate with U.S. coal and fossil energy technology industries in more active promotion of international trade opportunities.

The directory represents a listing of U.S. private sector entities offering coal and coal technology products that are available for export. Included in these pages are resources for coal of all types and compositions from the **United State's 290 billion short tons of estimated recoverable resources,** technical and consulting services in every aspect of coal utilization and technology implementation, plant and process equipment in every conceivable application, and venture capital. This is far from a complete listing, and it is intended that the list will be expanded in subsequent editions of the directory.

U.S. DOE will continue to develop its list of organizations in this directory as industry awareness increases within the U.S. and as new products and technologies come to market.

The U.S. is committed to advancing the utilization of coal and capturing the value of this plentiful and inexpensive energy source. This commitment, however, is coupled with an understanding of the environmental demands of such utilization and the need to apply clean coal technologies to protect the world ecosystem and the quality of life on this planet.

DO NOT MICROFILM
THIS PAGE

I. INTRODUCTION

The purpose of this directory is to provide a listing of available U.S. coal and coal related resources to potential purchasers of those resources abroad. The directory lists business entities within the United States which offer coal related resources, products and services for sale on the international market. Each listing is intended to describe the particular business niche or range of product and/or services offered by a particular company. The listing provides addresses, telephones, and telex/fax for key staff in each company committed to the facilitation of international trade. The content of each listing has been formulated especially for this directory and reflects data current as of the date of this edition.

The directory listings are divided into four primary classifications:

- Coal Resources
- Technology Resources
- Support Services
- Financing and Resource Packaging

The first three of which are subdivided as follows:

- Coal Resources
  - Coal Derivatives
  - Coal Exporters
  - Coal Mining

- Technology Resources
  - Advanced Utilization
  - Architecture/Engineering
  - Boiler Equipment
  - Emissions Control and Waste Disposal Systems
  - Facility Construction
  - Mining Equipment
  - Power Generation Systems
  - Technical Publications
  - Transport Equipment

- Support Services
  - Coal Transport
  - Facilities Operations
  - Freight Forwarders
  - Technical Consultants

Listings for the directory were solicited on the basis of this industry breakdown. Each category represents a section with listed companies in alphabetical order. A general alphabetical index of companies and an index by product/service classification are provided following the last section of the directory.

Below and at the beginning of each section are expanded definitions for each subclassification:

- **Coal Derivatives** - Firms producing/selling products derived from coal through specific alteration technology or resource recovery.
- **Coal Exporters** - Firms engaged in the export of U.S. coal to other nations.
- **Coal Mining** - Firms engaged in coal mining.

- **Advanced Utilization** - Providers of technology and equipment designed for utilization in a system environment which allows for combustion of coal without significant air or water pollution or solid waste stream control problems.
- **Architecture/Engineering** - Firms providing power and/or industrial plant design services.
- **Boiler Equipment** - Firms providing coal and/or derivative combustion and steam generation equipment and systems.
- **Emissions Control and Waste Disposal Systems** - Firms providing in-process (LIMB, etc.) and stack (ESP, Baghouses, Cyclones, etc.) emissions control systems, and waste stream management, disposal, and recycling technology.
- **Facility Construction** - Firms providing construction services, often in conjunction with A&E firms.
- **Mining Equipment** - Firms providing equipment for underground and surface mining, as well as conveying, crushing, sizing, and beneficiation.
- **Power Generation Systems** - Firms providing electrical generating systems for use in conventional steam plants, as well as gas turbine systems and combined cycle systems.
- **Technical Publications** - Firms providing manuals, handbooks, and other technical literature relating to coal and coal technology.
- **Transport Equipment** - Firms providing equipment used in rail and shipboard transport of coal.

- **Coal Transport** - Firms providing transportation services between mine-mouth and ultimate consumer.
- **Facilities Operations** - Firms providing plant operation and management (O&M) services on a contract basis.
- **Freight Forwarders** - Firms providing brokerage services in domestic and international transport.
- **Technical Consultants** - Firms providing engineering, scientific and other technical services in any area related to coal and coal technologies.

Central to the marketing perspective of U.S. industry is the "package concept." Package deals will marry one or more segments of the industry to develop synergism in the use of resources and provide a package to a variety of needs of the overseas buyer. Individual directory listees may wish to pursue a package approach, or potential purchasers of U.S. coal and technology resources may elect to structure a package from the categories listed in the directory. Depending on the availability of indigenous resources, such packages might encompass all or part of the example shown below:

Example Coal and Coal Technology Package

A comprehensive example of a Coal and Coal Technology Package might be the case of an overseas buyer contracting for the turn-key construction of a coal fired power generation facility and, at the same time, securing a 20 year coal supply contract to complement it.

The packagers of such a deal might put together these principal elements:

- Technology (plant),
- Coal (beneficiated), and
- Financing.

In the technology area a facility integrator could provide:

- Architecture/Engineering services,
- Advanced boiler equipment, e.g., AFBC,
- In-process emissions control technology (CCT),
- Stack emissions control technology,
- Steam driven generation equipment,
- Facilities construction, and even
- Operations & Maintenance (beyond turn-key).

The coal supplier would provide coal, C.I.F. the plant. This might involve:

- Coal, FOB mine 20 year quantity at spec. (sulfur, BTU, etc.),
- Dedicated or shared beneficiation process,
- Ground transport (U.S.),
- Ocean transport, and
- Ground transport (destination).

The financing package could cover the plant capitalization based on the projected revenue stream over the sample period (20 years). The investment banking aspect of the financing would cover the integrating of public and private financing and take advantage of the import/export incentives that exist in various jurisdictions internationally. Further, developing a viable funding strategy would address contractor performance guarantees, liability issues, and plant performance guarantees.

It is possible that the potentially higher costs of the individual elements in a package can be overcome by savings generated over the entire package. Additionally, companies may be willing to pay premiums on bulk resources if combined with technologies which do not impose further burdens on the environment.

DO NOT MICROFILM
THIS PAGE

II. COAL RESOURCES

Coal Derivatives: Firms producing/selling products derived from coal through specific alternation technology or resource recovery.

Acurex Corporation
Environmental Systems Division
485 Clyde Avenue
P.O. Box 7044
Mountain View, CA 94039

ACUREX Corporation
Environmental Systems Division

Telephone: (415) 961-5700
Telex: 325961
Fax: (415) 964-5145
Chief Operating Officer: William Dean, President
Division General Manager: William Byars, Vice President
International Sales Manager: David Delasanta
Domestic Offices: TRIANGLE PARK, NC: P.O. Box 13109, Research Triangle Park, NC 27709
International Offices: Please contact headquarters for information.

The Environmental Systems Division of Acurex Corporation provides a full range of fuel services to government and industry. These include combustion facility design, operation and maintenance; environmental engineering and pollution control; and emissions sampling and analysis. Through its research for federal and state agencies such as the Environmental Protection Agency, the Gas Research Institute, the Department of Energy, and the California Energy Commission, the division develops technologies for commercial application and is able to provide industry with turnkey, state-of-the-art solutions for all combustion-related environmental engineering needs.

Product/Service	Description
Advanced Utilization	Testing of solvent-refined coal; assessment of clean coal use in stationary and mobile engines; testing of coal-oil mixtures in boilers; fuel staging research; assessment of coal-oil mixtures as light-off fuel; hot gas cleaning technology for coal-fired, pressurized, fluidized bed combustors.
Architecture/Engineering	Prototype design, fabricate and install coal combustion research furnaces. Design, fabricate and install pilot coal gasifiers, and fluidized bed combustors.
Boiler Equipment	Low SO_2 and low NO_x combustion control technology; boiler modification/engineering; test coal additives to alter flyash characteristics; co-firing of hazardous waste in boilers; perform risk assessment of controlling NO_x emission from coal utility boilers.
Coal Derivatives	Clean coal use in stationary and mobile engines; demonstrate coal-oil mixture prep plant.
Facility Construction	Construction management; install coal combustion furnace; install pilot coal gasifier; supply anthracite gasifier.
Facility Operation	Operation of coal burning plants/equipment; O&M of fluidized bed combustor.

AFT, Inc.
200 Public Square
21-3604-K
Cleveland, OH 44114-2375

Telephone: (216) 586-5206
Telex: 6873120
Fax: (216) 586-5448
Chief Executive Officer: Jerry J. Oliver
International Sales Manager: William F. Christensen
Domestic Offices: BRIDGEPORT, NJ: 618 Heron Drive, P.O. Box 339, Bridgeport, NJ 08014

AFT, Inc. is a wholly owned subsidiary of BP America and is involved in the production and marketing of coal fuels that have been beneficiated using AFT's patented SPRAYFLOT™ flotation cells. The company also licenses the technology and participates in joint ventures worldwide. One of the original developers of coal-water slurries, the company is now able to apply its mineral separation technology to the beneficiation of coal waste streams.

Product/Service	Designation	Description
Coal Mining Advanced Utilization	SPRAYFLOT™	The SPRAYFLOT™ flotation cell can be used to effectively reduce ash and sulfur levels in high-ash coal waste streams. The integral part of AFT's unique beneficiation system, it ensures improved separation, selectivity and recovery, when compared to conventional flotation methods.

Agglite Corporation
P. O. Box 1647
Charlottesville, VA 22902

Telephone: (804) 977-7040
Fax: (804) 977-1916
Chief Executive Officer: Peter W. Schmidt
International Sales Manager: Gary D. Courts
Domestic Offices: CHESAPEAKE, VA: 2701 Vepco St., Chesapeake, VA 23323 TEL. (804) 487-9631

The Agglite Corporation owns a patented process to manufacture high quality lightweight aggregate from coal fly ash. This lightweight aggregate is used as a primary ingredient in concrete and concrete block manufacturing. Agglite is owned by Allied Concrete Company, a large American concrete-products company with over 40 years of manufacturing experience in redi-mix concrete, concrete block, prestressed concrete and other building materials. Fly ash, along with cement and other ingredients are agglomerated into hardened pellets. These pellets provide the block or ready-mixed concrete producer several advantages over existing materials including decreased manufacturing costs, lower unit weight and improved particle shape.

Product/Service	Description
Coal Derivatives	There is an increasing need for economically attractive and environmentally sound alternatives to disposal of high volumes of combustion by-products. The development of our manufactured lightweight aggregate process through the operation of laboratory and pilot-scale facilities has led to the successful construction and operation of commercial plants with two major utility companies. The Agglite process is not limited to low carbon fly ashes like most conventional uses. The basic Agglite technology involves material agglomeration through the operation of a pan pelletizer. We are currently involved in efforts to process a variety of ashes and other advanced coal combustion by-products to render them environmentally acceptable and to facilitate handling and transportation of materials back to mine sites or other areas.

ARCTECH, Inc.
5390 Cherokee Avenue
Alexandria, VA 22312

Telephone: (703) 642-4190
Fax: (703) 642-4021
Chief Executive Officer: Daman S. Walia
International Sales Manager: Tom Paulson

ARCTECH, Inc. is a "spinoff" company organized by the Atlantic Research Corporation of Alexandria, Virginia. ARCTECH is focusing on development and marketing of coal bioprocessing technologies and products. The ARCTECH group pioneered biotechnology research to remove organic sulfur from coal, and convert coal into clean fuels like methane and oxygenated alcohol fuels. One of the by-products of ARCHTECH's coal technologies is organic base fertilizer, termed as "ACTOSOL." ARCTECH is now actively marketing the ACTOSOL in the United States and seeks to develop an international market for this product. ARCTECH also provides services to develop bioprocess technologies for specific coal resources.

Product/Service	Description
ACTOSOL	ACTOSOL is a coal derived organic base fertilizer designed for retail and commercial use. The humic acids are extracted from the coal with the ARCTECH proprietary technology and formulated into a fertilizer with the required nutrients. The humic acids are known to act as nutrient activators and this new product is a preferred fertilizer over the commercial inorganic fertilizers.
Bioprocess Technology	ARCTECH provides services to develop bioprocessing technology for specific coal resources. To date most of the technology development is for low rank coals such as brown coals, lignite, and sub-bituminous.

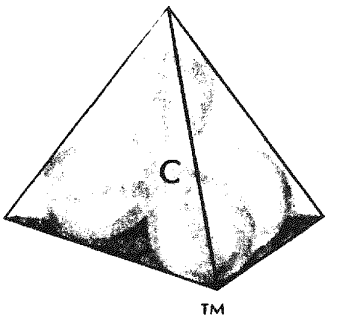
Atlantic Research Corporation
5390 Cherokee Avenue
Alexandria, VA 22312

Telephone: (703) 642-4000
Telex: (703) 754-2521
Fax: (703) 642-4021
Chief Executive Officer: William H. Borten
International Sales Manager: Edward T. McHale

Atlantic Research Corporation is an advanced technology firm with activities in research, service, and production of solid rocket motors, electronic equipment, advanced materials, and energy sources. The primary activity in the energy area has been development of a coal-water-fuel product, which has been brought to the point of commercialization.

Product/Service	Description
Coal-Water Fuel (Coal Derivatives)	The coal-water-fuel slurry produced by Atlantic Research Corporation is marketed under the registered tradename ARC-COAL®. This product is a very fluid, highly stable slurry which typically contains 70% coal and 30% water. It is intended as a replacement fuel for heavy oil in industrial and utility boilers and other types of combustors. Atlantic Research has licensed the proprietary technology to produce this fuel to several organizations throughout the world. The company provides technology transfer, plant design, and engineering services for licensees and will consider direct supply of the ARC-COAL® product to users.

Carbon Fuels Corporation
Denver Technological Center
5105 DTC Parkway, Ste 317
Englewood, CO 80111



Telephone: (303) 770-7667
Fax: (303) 770-7683
Chief Executive Officer: Lee G. Meyer
International Sales Manager: Earl A. Bowers

Carbon Fuels Corporation ("CFC"), which has been in operation since November 1984, has developed and patented a "value-added" coal refining technique which uses coal as the sole feedstock to produce a clean, non-polluting, pipeline transportable, fluidic, non-aqueous, slurry-type fuel (Charfuel® fluidic fuel) and slate of environmentally acceptable, value-added chemical feedstocks and fuels for both stationary and mobile application. The Charfuel® technology removes much of the fuel nitrogen and sulfur from the coal. Thus, combustion of the Charfuel® fluidic fuel in existing power plant boilers is expected to reduce SO_2 and NO_x emissions without the installation and operation of flue gas scrubbers or fluidized bed boilers. The Charfuel® fluidic fuel and co-products can be transported (a) in laminar flow using existing oil handling facilities at about the same transportation costs as those charged for light crude oil, and (b) by rail, barge, tanker truck, or tanker ship.

Product/Service	Description
Charfuel® Fluidic Fuel	Charfuel® fluidic fuel is an admixture of char, wet methanol, and hydrocarbon oil produced during the Charfuel® process and has a higher heating valve than the parent coal. The Charfuel® fluidic fuel contains from about 50% to about 75% by weight solids (char) and has a heating value in excess of 13,000 Btu/lb. It is expected to be available for commercial export in small quantities by 1992 and in larger quantities by the year 2000.

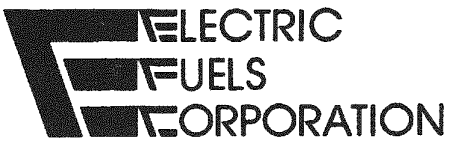
Chatterjee and Associates, Inc.
4883 Windemere Drive
Newark, CA 94560

Telephone: (415) 796-5436
Fax: (415) 792-0693
Chief Executive Officer: Anil K. Chatterjee
International Sales Manager: Anil K. Chatterjee
Domestic Offices: FREEMONT, CA: 4165 Sedge Street, Fremont, CA 94555 TEL. (415) 475-1168

Chatterjee and Associates, Inc. specializes in technical and economic evaluations of conventional and non-conventional fuel conversion technologies, environmental pollution control system design, process optimization and system analysis. C&AI has experience in working with developing countries via US-AID and United Nations projects.

Product/Service	Description
Clean Coal Process (Beneficiation)	Process design, system optimization, technical and economic evaluations.
Coal-Derived Fuel Conversion Technologies	Coal-derived fuels such as AFBC, Coal-Slurry-Fuel (CSF), coal gasification, liquefaction, handling, combustion, process optimization and economic analyses.
Non-Conventional Fuel	Biomass, solid wastes, peat, lignite conversion technologies and other indigenous fuel energy conversion technology analysis.
Technical Training and Education	Class room teaching and seminar Presentation on Appropriate Fuel Energy Conversion and Conservation.

Electric Fuels Corporation
235 Third Street South
P. O. Box 15208
St. Petersburg, FL 33733



Telephone: (813) 892-2700
Telex: 514168
Fax: (813) 892-2702
Chief Executive Officer: Richard D. Keller, President
International Sales Manager: Ernst A. Upmeyer III, Vice President, Albert W. Pitcher, Vice President

Electric Fuels Corporation (EFC) through its many subsidiaries is involved in coal mining, coal transportation, coal transfer facilities, fuel research in the coal area and the development of coal-based alternative fuels. Electric Fuels has developed a coal management system that has proved to be successful and highly competitive in supplying coal from mine site to the customer. This fully-integrated system is composed of five essential groups: coal, operations, marine and terminaling, alternative fuels and international marketing. The integration of these groups under Electric Fuels' management provides the necessary exposure to all phases of the coal industry.

Product/Service	Description
Advanced Utilization	With access to experts in virtually every application of coal combustion, Electric Fuels can provide qualified technical know-how in the areas of ash utilization, mineral and metal recovery from ash and in ash disposal. From start to finish, Electric Fuels' customers are assured of experienced assistance with all their coal handling needs. EFC has developed services ranging from field and laboratory functions to advanced computer support.
Coal Derivatives	Electric Fuels' involvement in the development of alternative fuels is through COMCO, a leader in the manufacture of coal-oil mixture (COM), coal-water mixture (CWM) and petroleum coke-oil mixture (PETCOM). Coal-liquid mixtures are produced at COMCO's Port Sutton, Florida facility. REDICOAL, COMCO's new powdered coal product for industrial and utility use, has proved to be an economical replacement for fuel oil and natural gas.
Coal Mining	The coal group is responsible for the mining and preparation of coal from sites containing approximately 215 million tons of reserves located in the states of Virginia, West Virginia and Kentucky. Origin points have capability to load both trucks and unit trains.
Coal Transport	Marine Equipment Management Corporation, a wholly-owned subsidiary, handles coal from all inland river origins in either single barge or unit tow lots. Standby loading is available. Covered barges are available. MEMCO also offers switching and fleeting services at various Mississippi River ports. Dixie Fuels Limited offers handling, storing, terminaling and transporting bulk cargo by sea-going marine transportation equipment.
Facility Operation	International Marine Terminals is a bulk materials handling facility strategically located near the mouth of the Mississippi River. The recently expanded terminal consists of modern facilities, ground storage/blending and a coal testing laboratory operated by an independent agent. Hatfield Terminals operates transfer facilities in Cincinnati, Ohio, on the Ohio River and near Charleston, West Virginia, on the Kanawha River. Kentucky May Coal operates a coal transfer facility on the Big Sandy River.

Ellison Consultants
4966 Tall Oaks Drive
Monrovia, MD 21770

Telephone: (301) 865-5302
Fax: (301) 831-5443
Chief Executive Officer: William Ellison
International Sales Manager: Gerd A. Ellison

The firm comprises technical development and engineering design specialists serving as independent consultants since 1981. The company is internationally recognized for its worldwide, coal-related, consulting work assignments and publications and oral communications experience for technology transfer to and from U.S.A. in the field of coal energy development and environmental pollution control.

Product/Service	Description
Stack Emission Control	The firm serves as a consultant to provide expertise in project planning and design activity for evaluation and utilization of available and emerging technologies for control of particulate, SO_2 and NOx emissions in firing of bituminous coal of high or alternative low sulfur content.
Management of Collected Waste	The firm offers specialized consulting service in coal-fueled project planning and design of management and marketing of solid and liquid waste byproducts generated by diverse means of control of environmental pollution.

Foster Wheeler Corporation
Perryville Corporate Park
Clinton, NJ 08809-4000

Telephone: (201) 730-4000
Fax: (201) 730-4360
Chief Executive Officer: L. E. Azzato
International Sales Managers: B. P. Stephan, I. G. Lutes
Domestic Offices: ATLANTA, GA; BOSTON, MA; CHARLOTTE, NC; CHICAGO, IL; DENVER, CO; HOUSTON, TX; KANSAS CITY, MO; LOS ANGELES, CA; NEW ORLEANS, LA; NEW YORK, NY; PHILADELPHIA, PA; PITTSBURGH, PA; WASHINGTON, DC; AND WINTER PARK, FL
International Offices: AUSTRALIA: TELEX 152838 REWOP AA; CANADA: TELEX 055-60042; CHINA: TELEX 210396 REWOP CN; COLUMBIA: TELEX 396-43254 REWOP CO; ENGLAND: TELEX 851-263984; FRANCE: TELEX 842-210 782; HONG KONG: TELEX 37512 FWAL HX; ITALY: TELEX 843-310548; JAPAN: TELEX 2323192; NETHERLANDS: TELEX 844-34264; NIGERIA: TELEX 22365 FOSWLD NG; SINGAPORE: TELEX RS 39292 FWINTL; SPAIN: TELEX 83122275; contact the main office for further information.

Foster Wheeler Corporation is an engineering, manufacturing, construction, real estate development and service organization with 23 subsidiaries operating worldwide. Founded in 1927, it is currently one of the world's largest engineering and construction organizations. International activities are conducted by affiliates in England, France, Italy, Spain, and Canada. U.S. based industrial subsidiaries supply diversified engineering technologies and allied equipment. Foster Wheeler Energy Corporation, a major United States subsidiary, designs, fabricates, maintains, manufactures, and constructs steam generating equipment for electric utilities and industry. This Foster Wheeler subsidiary furnishes condensers, feedwater heaters, and other major auxiliary equipment for coal, oil, and gas-fired installations in the United States and abroad. Foster Wheeler's application of alternate energy sources have advanced the state of the art. Current projects involve refuse-to-energy plants, the cogeneration of industrial steam and electric power, a proprietary sludge drying process and high technology heat recovery equipment.

(Continued on next page)

Foster Wheeler Corporation (Continued)

Product/Service	Description
Advanced Utilization	Foster Wheeler Development Corp., Livingston, NJ (201) 535-2300
Architecture/Engineering (A&E)	Foster Wheeler USA Corp., Clinton, NJ (201) 735-4770
Equipment	Foster Wheeler Energy Corp., Clinton, NJ (201) 730-4310
Coal Derivatives	Foster Wheeler USA Corp., Clinton, NJ (201) 730-4606
Facility Construction	Foster Wheeler Constructors, Clinton, NJ (201) 735-5076
Facility Operation	Foster Wheeler Management Operations, Ltd., Houston, TX (713) 872-6911
Financing	Foster Wheeler Power Systems, Clinton, NJ (201) 730-4000

JTM Industries, Inc.
777 Franklin Road
Marietta, GA 30067

Telephone: (404) 424-1900
Fax: (404) 424-9290
Chief Executive Officer: Bill G. Fletcher
Executive Vice President: Dennis L. Kinder
Domestic Offices: HOUSTON, TX: 4635 Southwest Freeway, Suite 400, Houston, TX 77027 TEL. (713) 965-9326; ALLENTOWN, PA: 420 W. Emmaus Ave., Allentown, PA 18103 TEL. (215) 797-7674; DAYTON, OH: 240 W. Elmwood Dr., Suite 2011, Dayton, OH 45459 TEL. (513) 435-3194; RICHMOND, VA: 1202 Bellwood Road, Richmond, VA 23237 TEL. (804) 271-7887

JTM Industries, Inc., a wholly-owned subsidiary of USPCI and Union Pacific Corporation, is a full-service by-product management company headquartered in Marietta, GA. JTM provides by-product management programs to the generators of combustion and mineral processing by-products by: (1) developing and implementing proprietary processes which generate higher market value products from coal combustion residue and (2) developing proprietary processes to accommodate reuse and/or disposal of more highly regulated non-hazardous ash streams. JTM has four divisions, each concentrating in a specific area of by-product management while drawing upon the expertise available throughout the corporation.

Product/Service	Description
Ash Management Division	AMD markets coal combustion by-products such as fly ash, bottom ash and fly ash lightweight aggregate throughout the U.S. These markets include concrete and concrete products, highway projects, structural fills, soil stabilization, chemical fixation and grouting. AMD maintains a fully-equipped R & D laboratory in Houston, TX.
Mineral By-Products Division	MBD develops and markets products derived from by-products of cement and lime production. These products include Gypcem®, Multical®, Peanut Maker®, and Pozzalime®. Pozzalime® is used at industrial and commercial waste treatment sites as a drying agent and soil amendment on construction projects. Gypcem® is used to control the set in portland cement. FilterEze™, a relatively new product, is used as a sludge conditioner.
Operations Division	The Operations Division, created January 1, 1989, manages the disposal of combustion by-products in an environmentally acceptable manner. Realizing that proper disposal techniques constitute a major portion of most by-product management programs and are becoming increasingly complicated and expensive, JTM organized this division to totally concentrate its efforts in this area.
Municipal Services Division	This is the newest division of JTM. Municipal Services is involved in the utilization and disposal of municipal solid waste ash and currently operates a half-million dollar pilot plant located in Taylorsville, GA, to develop new technology. JTM considers this activity one of the greatest potential growth areas.
KBK Enterprises, Inc.	KBK is the only subsidiary company of JTM. KBK is an engineering group which provides services to utilities, cogenerators, municipalities, real estate developers and manufacturers. KBK provides internal engineering support to JTM and USPCI and offers its unique consulting services on an independent basis in: ash management, landfill design and permitting, environmental site assessment, ash handling equipment design, material processing plant design, construction management and real estate development.

K-FUEL® PARTNERSHIP

K-Fuel Partnership
1999 Broadway/Suite 2505
Denver, CO 80202

Telephone: (303) 293-2992
Telex: 550233 T VENNERS DVR
Fax: (303) 293-8430
Chief Executive Officer: Ted Venners
International Sales Manager: Ted Venners
Domestic Offices: GILLETTE, WY: K-Fuel Processing Facility and Laboratory, P.O. Box 1777, Gillette, WY 82717 TEL. (307) 687-1013, FAX (303) 687-1635

K-Fuel Partnership was formed in 1984 to market and license the K-Fuel technology worldwide. On-going research and development, funded by the Partnership, has taken the technology through the bench-top, pilot plant, and full-scale demonstration facility phases, and into commercialization at the Fort Union Mine near Gillette, Wyoming. The Gillette facility includes a state-of-the-art laboratory, where feedstock evaluation and process and product analysis allows for optimum plant operation and a custom-made end product.

Product/Service	Description
Advanced Utilization	Low-rank feedstocks, and particularly subbituminous coals and lignites, require derating of capacity or costly equipment modifications in order to meet boiler requirements and ever-changing environmental restrictions. These feedstocks are difficult to handle and expensive to transport because of their high moisture content and combustibility. Using a proven, patented, advanced coal beneficiation technology that economically upgrades low-rank feedstocks, the high-Btu, low sulfur, low moisture, environmentally acceptable K-Fuel product addresses those problems.
Coal Technology	The K-Fuel process, a proven patented, advanced coal beneficiation technology that economically upgrades a variety of low-rank feedstocks, provides the utility or industrial user with a high Btu, low sulfur, low moisture, environmentally acceptable solution to their fuel requirements. This technology is available for licensing throughou the world.
Coal Industry	Low-rank coal reserves are abundant throughout the world; however, users prefer high-Btu coal for their boilers. The K-Fuel process, a proven patented, advanced coal beneficiation technology that economically upgrades low-ran coals, providing a high-Btu, low sulfur, low moisture, environmentally acceptable product. This technology is available for licensing throughout the world.
Coal Exporters	K-Fuel, produced using a proven, patented, advanced coal beneficiation technology that economically upgrades a variety of low-rank feedstocks, is a viable, high-btu, low sulfur, low moisture energy source for utility and industrial users. Produced to meet the user's boiler specification and having stable handling and storage characteristics, K-Fuel is competitively priced in the coal market.
Facility Construction	The K-Fuel process, a proven, patented, advanced coal beneficiation technology that economically upgrades a variety of low-rank feedstocks, provides the utility or industrial user with a high-Btu, low sulfur, low moisture, environmentally acceptable solution to their fuel requirements. K-Fuel Partnership can provide the technology license, construct the site-specific facility, train personnel, and/or operate the facility.

Lafarge Corporation
Southern Region
Trinity Fly Ash
P.O. Box 324
Dallas, TX 75221



Telephone: (214) 934-7300
Telex: 910 860 5288; EASYLINK - 5101009119
Fax: (214) 960-2527
Chief Executive Officer: Eric H. Sundquist, Vice President
International Sales Manager: C. L. ("Ham") Wenzel, General Sales Manager
Mike L. Ward, General Manager

Trinity Fly Ash markets quality fly ash within Texas, Oklahoma, Arkansas and Louisiana for use in portland cement concrete, concrete products, soil stabilization, solid waste solidification and oil well service applications. Trinity Fly Ash markets both C and F Chemistry Fly Ash from its fly ash distribution facilities under the registered trade name of TPA, Trinity Pozzolanic Admixture.

Product/Service	Designation	Description
Advanced Utilization	Fly Ash - TPA-0	High quality fly ash meeting the physical and chemical requirements of ASTM C-618-85, standard specification for fly ash and raw or calcined natural pozzolan for use as a mineral admixture in portland cement concrete. TPA-0 is an approved source of Class C Pozzolan by the Corps of Engineers.
	Fly Ash - TPA-L	Same description as TPA-0.
	Fly Ash - TPA-M	High quality fly ash meeting the physical and chemical requirements of ASTM C-618-85, Standard specification for fly ash and raw or calcined natural pozzolan for use as a mineral admixture in portland cement concrete. TPA-M is an approved source of Class F Pozzolan by the Corps of Engineers.
	Fly Ash - TPA-B	Same description as TPA-M.

Monex Resources, Inc.
45 NE Loop 410
Suite 700
San Antonio, TX 78216



Telephone: (512) 349-4069
Fax: (512) 349-8512
Chief Executive Officer: Gerry J. Gordon
International Sales Manager: W. E. Ellis, Jr.
Domestic Offices: ATLANTA, GA: Southern Regional Office, 2030 Powers Ferry Road, Suite 206, Atlanta, GA 30339 TEL. (404) 955-0089; GREENSBORO, NC: Mid-Atlantic Regional Office, 2708 Church Street, Suite G, Greensboro, NC 27405 TEL. (919) 375-4066; AUBURNDALE, FL: Southeastern Regional Office, 227 Pearl Street, Auburndale, FL 33823 TEL. (813) 967-6626; SAN ANTONIO, TX: Southwestern Regional Office, 45 NE Loop 410, Suite 700, San Antonio, TX 78216 TEL. (512) 341-6182

Monex Resources, Inc. is an American corporation headquartered in San Antonio, Texas with over one million tons of fly ash and bottom ash sold annually. Currently nearing the beginning of its fourth decade of operations, Monex Resources has become a national leader in fly ash marketing and handling by providing a fly ash distribution system including over fifteen power plants in ten states reaching from Virginia through the Carolinas, Georgia, Florida to Texas. The Company also operates admixture manufacturing facilities in Florida, North Carolina and Texas and ash landfills throughout the southern and southeastern states.

Product/Service	Description
Fly Ash	Through selective collection and classification at the power station, Monex is able to produce only the highest quality, consistent fly ash, featuring lower loss on ignition (carbon content) and the highest performance characteristics in concrete. In addition to its utilization in the production of concrete and concrete products, fly ash is also provided for use as a mineral filler in asphaltic concretes and other industrial uses, as an additive for the stabilization of chemical wastes and sludges, as an effective pozzolanic cementing agent in grouts and controlled density fills, and in the production of road base and roller compacted concretes.

(Continued on next page)

Monex Resources (Continued)

Bottom Ash	Monex bottom ash is a valuable additional by-product of the coal combustion process. In its processed form, Monex pyrite-free bottom ash is an attractive, cost-effective alternative to manufactured lightweight aggregates in the manufacture of concrete products. While the characteristics of the bottom ash vary by source, significant savings in the cost of aggregates are possible, while producing a concrete unit of desireable texture, weight, absorption characteristics, and shrinkage. Bottom ash is also extensively utilized as a correcting material, in the manufacture of portland cement providing a source of the alumina and iron compounds required for cement clinker production.
Ash Disposal	Through its Utility Services division, Monex performs ash management services for the electricity generating industries. Utility Services is responsible for the management, transportation, placement, compaction, and reclamation of fly ash, bottom ash, and ponded ash in environmentally acceptable landfills. This division managed some 1.5 million tons of ash disposal in the year ended June, 1988.

Passamaquoddy Technology
178 Middle Street
P.O. Box 7412 DTS
Portland, ME 04112

Passamaquoddy Technology

Telephone: (207) 773-8656
Fax: (207) 773-8832
Chief Executive Officer: Garrett L. Morrison, Ph.D.
International Sales Manager: Donald W. Perkins, Jr.
Domestic Offices: THOMASTON, ME: Office of Research & Development, U.S. Route One, P.O. Box 350, Thomaston, ME 04861

Passamaquoddy Technology is dedicated to developing cost effective solutions to complex environmental problems that confront heavy industry. Passamaquoddy Technology is currently demonstrating its Recovery Scrubber at commercial scale. Also under development are solutions to carbon dioxide emissions, economically viable use of waste tires, and economically viable use of municipal incinerator ash.

Product/Service	Description
Recovery Scrubber	The Recovery Scrubber is a flue gas desulfurization technology (90% + SO_2 scrubbing efficiency, significant NO_x and CO_2 scrubbing) that utilizes a waste product as scrubbing reagent, produces marketable byproducts (fertilizer, distilled water, and cement kiln feed), and is applicable to fossil-fired boilers in the utility, cement, paper and waste-to-energy industries. The Recovery Scrubber is unique in its use of a waste stream as scrubbing reagent, its production of byproducts with proven markets, and its potential to defray operating and capital costs through reagent tipping fees and byproduct sales revenue. The Recovery Scrubber is currently being demonstrated at commercial scale. Inquiries regarding performance characteristics and cost estimates for specific sites are welcome.

Sun Coal Company
4711 Old Kingston Pike
P.O. Box 10388
Knoxville, TN 37939-0388



Telephone: (615) 558-0300
Telex: 55-7045
Fax: (615) 558-3280
Chief Executive Officer: Richard W. Ince
International Sales Manager: David H. Everest, Jr.
Domestic Offices: CHARLOTTE, NC: 5835 Executive Center Drive, Suite 105, Charlotte, NC 28212 TEL. (704) 568-2970; LITTLETON, CO: 26 West Dry Creek Circle, Suite 106, Littleton, CO 80120 TEL. (303) 730-1900; PITTSBURGH, PA: 720 Two Gateway Center, Pittsburgh, PA 15222 TEL. (412) 281-4728

Sun Coal Company is one of the largest coal companies in the U. S. with mining operations in Kentucky, Utah, Virginia, West Virginia and Wyoming. The seven different mining operations produce low sulfur coals for the steam and metallurgical markets and are strategically located to supply high quality products to virtually every North American port. Sun also owns and operates a "non-recovery" coke plant of unique design in Virginia and sells high quality furnace coke to the steel industry. Sun Coal Company is a wholly-owned subsidiary of Sun Company, Inc., a major U. S. oil company.

Product/Service	Description
Coal Mining	Sun Coal is a major coal mining company supplying high quality steam coals for the electric utility industry and mid and high volatile coking coals to the steel and ferro-alloy industries. Sun Coal also makes high quality furnace coke with its patented "non-recovery" coke oven technology utilizing its mid volatile coking coal exclusively.
Coal Exporters	
Coal Derivatives	

Williams Technologies, Inc.
320 South Boston, Suite 831
Tulsa, OK 74103

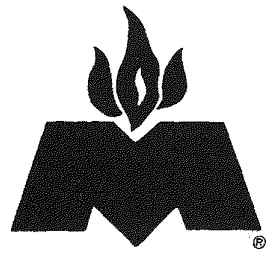
Telephone: (918) 582-5811
Fax: (918) 584-0474
Chief Executive Officer: David R. Williams, Jr.
International Sales Manager: H. J. Brolick
International Offices: Please contact company headquarters for further information.

Principal business is project assessment, development and management from initiation of concept through commercial implementation, including financial sourcing. Manages R&D partnership for oil and mineral technologies, R&D program for coal liquefaction technology and operation of Black Mesa coal slurry pipeline. Provides consulting with regard to economic feasibility or technical evaluation of energy or resource projects. Manages operating facilities and technology development for others. Special expertise in development of coal slurry pipeline projects through past worldwide experience and ongoing operations management of Black Mesa pipeline.

Product/Service	Description
Coal Transport	Provides development, management, financial packaging and operation management of coal slurry pipeline systems.
Architecture/Engineering	Provides consulting services in planning and feasibility study, as well as management of design, construction and operations for coal slurry pipeline and oil and gas pipeline systems. Provide similar services for cogeneration plants and alternative energy projects.
Coal Derivatives	Management services for coal liquefaction and deep cleaning R&D.

Coal Exporters: Firms engaged in the export of U.S. coal to other nations.

A. T. Massey Coal Company, Inc.
4 North Fourth Street
Richmond, VA 23219



Telephone: (804) 788-1800
Telex: 240503
Fax: (804) 788-1870
Chief Executive Officer: E. Morgan Massey
International Sales Manager: J. Morton Eggleston

A. T. Massey Coal Company, Inc. and its related companies ship more coal from Central Appalachia than any other supplier. In 1988, 25.6 million tons of coal were delivered to more than 180 Massey Coal customers worldwide. Beginning as a coal trading company in 1916, A. T. Massey Coal Company, Inc. is now the coal mining subsidiary of Fluor Corporation, one of the world's largest engineering, construction and maintenance firms. Our affiliate, Fluor Daniel is currently rated #1 among the top 400 U.S. construction companies by Engineering News Record. It provides global capability from more than 50 offices located around the world. Massey Coal is uniquely positioned to supply a diversity of products. With fifteen mining complexes located throughout the Appalachian coal fields, Massey Coal operations are on all major rail systems, have access to river and truck delivery, and lead the industry in preparation plant efficiency and quality control. Massey Coal also represents a wide-ranging network of independently produced coals. A 710 million ton reserve base assures Massey Coal customers of a continuing supply of high quality metallurgical and steam coal.

Product/Service	Description
Coal Export Coal Mining	Massey Coal Export Company serves customers in more than 30 countries throughout the world. Shipping from all major East Coast and Gulf Coast terminals, we move roughly 10 percent of all seaborne U.S. metallurgical coal and are rapidly approaching the same market share for steam coal. Since 1984, Massey Coal Export's sales have increased 70 percent, reaching 7.5 million tons in 1988. This growth in both metallurgical and steam coal sales demonstrates our ability to compete successfully in the highly competitive world market, where quality and price make a difference.
Technical Services	Steel industry customers throughout the world have come to rely on Massey's quality assurance program, a program second to none in the coal industry. Every Massey Coal metallurgical mining operation has implemented Statistical Process Control to insure the quality product our customers require. We combine marketing capability with technical expertise to locate the most economical coals for customers' operations. Our experts look at more than delivered product cost; they look at resultant coke quality, blast furnace performance, and an improved bottom line for the customer. This innovative approach is paying off so well for our metallurgical coal customers that we are expanding its application to steam coal sales.

Andalex Resources, Inc.
1201 Hurstbourne Place
9300 Shelbyville Road
Louisville, KY 40222



Telephone: (502) 426-7322
Telex: 204 245 ANDALEX LVL
Fax: (502) 429-0007
Chief Executive Officer: Gary Livingstone
International Sales Manager: W. Keith Smith, Vice President
Domestic Offices: MADISONVILLE, KY: Highway 41A North, Madisonville, KY; DENVER, CO: 1515 Arapahoe St., Denver, CO

Andalex Resources, Inc., is a private company formed by a family which has been mining coal continuously for over 150 years. Andalex Resources comprises four active mines and current production capacity is in excess of four million tons per year. The company has earned recognition as a reliable large-volume long-term supplier to industry and public utilities in the United States and overseas. A primary company goal is to have the flexibility necessary to respond to customers quickly and cost effectively.

Product/Service	Description
Coal Mining/ Coal Exporters	Madisonville, KY: An area surface mine operation with long-term and spot sales in excess of 2 million tons. Cimarron can load on CSX or P&L rail lines with rail-to-barge transfer at several river ports for gulf shipments. Price, UT: Operates underground drift access, room and pillar mines in the book cliffs coal fields of Utah. Sales include long-term and spot contracts to utility and industrial customers. Is a major coal supplier to the far east primarily through the port of Los Angeles. Beverly, KY: Surface and underground mining operations located in eastern Kentucky with production capacity of 1.5 million tons. Has proven to be a competitive supplier to industrial and utility customers from Michigan to Florida. 4-hour unit train loadout capability on CSX rail. Export shipments through New Orleans, LA; Mobile, AL; Charleston, SC. Frostburg, MD: Located in Western Maryland is an area surface mine producing low volatile coal. Currently supplying domestic customers, the Frostburg mine has been a successful supplier to the European market. Coal is shipped through ports in Baltimore and Philadelphia.

Anker Energy Corporation
Rt. 12, Box 245
Morgantown, WV 26505

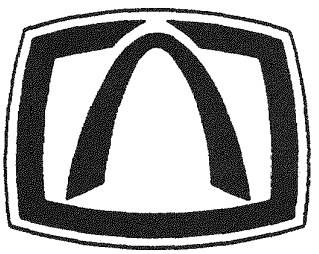


Telephone: (304) 296-1616
Fax: (304) 291-3692
Chief Executive Officer: John J. Faltis
International Sales Manager: Neil Cregg
Domestic Offices: FLORHAM PARK, NJ: 26 Columbia Turnpike, Suite 100, Florham Park, NJ 07932 TEL. (201) 822-0818; KENOVA, WV: 1230 Chestnut Street, Kenova, WV 25530 TEL. (304) 453-3555

Anker Energy is a producer, broker and trader of U.S. origin coals affiliated with Anker Kolen, a coal trading company in the Netherlands. We are equipped to source coal domestically in the U.S. and internationally through our affiliate. We produce in excess of 2 million annual tons with annual sales of 4 to 6 million tons. In addition, we are equipped to buy, sell, mine and arrange for sales of coal f.o.b. mine, f.o.b.t., CIF or CF, as the case may be.

Product/Service	Description
Coal Exporters	Coal exports through U.S. East Coast and New Orleans. All grades of coal.
Coal Mining	Domestic U.S. producer of 2 million plus annual tons in West Virginia, Pennsylvania and Maryland.

Arch Coal Sales Company, Inc.
CityPlace One
CityPlace Drive
St. Louis, MO 63141

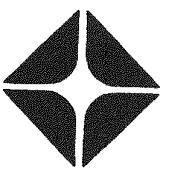


Telephone: (314) 994-2700
Telex: 5106011393
Fax: (314) 994-2719
Chief Executive Officer: R. E. Samples
International Sales Manager: Sheridan A. Glen

Arch Coal Sales Company, Inc. is the international coal sales subsidiary of Arch Mineral Corporation. Arch Mineral Corporation is a coal mining company. It was formed in 1969 and has over 3,500 employees.

Product/Service	Description
Coal Exporters Coal Mining	The company currently sells almost 20 million tons annually of high quality steam and metallurgical coal from mines in Illinois, Kentucky, West Virginia and Wyoming. Arch has the capability of exporting coal from port facilities in: Newport News and Norfolk, VA; New Orleans, LA; Charleston, SC; Mobile, AL; and Los Angeles/Long Beach, CA.

ARCO Coal Company
555 Seventeenth Street
Denver, CO 80202



Telephone: (303) 293-4000
Telex: 454545
Fax: (303) 293-4820
Chief Executive Officer: H. L. Bilhartz, President
International Sales Manager: Charles B. Smith, VP, Marketing & Operations

In 1988, ARCO Coal Company's world wide production was over 32 million tons, 20% of which was sold overseas. ARCO Coal Company is the sixth largest coal company in the U.S.

Product/Service	Description
Coal Mining Coal Export	ARCO Coal Company, a division of Atlantic Richfield Company, is an international coal company with significant operations in several of the world's premium coal basins. In the United States, ARCO's Thunder Basin Coal Company operates the Black Thunder and Coal Creek Mines located in Campbell County, Wyoming. Mountain Coal Operations, a unit of ARCO Coal Company, operates the Trail Mountain No. 9 Mine located in Emery County, Utah and the Mt. Gunnison mine located in Gunnison County, Colorado. Specifications upon request.

Arctic Slope Regional Corporation
6700 Arctic Spur Road
Anchorage, AK 99518



Telephone: (907) 349-5148
Fax: (907) 349-4213
Chief Executive Officer: Jacob Adams, President
International Sales Manager: Kent Grinage, Box 650, Barrow, AK 99723

Arctic Slope Regional Corporation (ASRC) was established pursuant to the Alaskan Native Claims Settlement Act of 1971 (ANCSA 1971) to represent the interests of Natives of Northernmost Alaska. ASRC has become a major force in Alaska. It has design, construction and operation capability with projects located throughout the state and resources to support a broad range of projects. ASRC is now diversified to where it now is comprised of 12 wholly owned subsidiaries with some 1600 employees and with annual revenues exceeding $90 million.

Product/Service	Description
Coal Exporters	Lands selected by ASRC are within the Northern Alaska Coal Province which contains up to four trillion tons of high quality coal. The coal is designated as high volatile A-B Bituminous with a heating value in excess of 12,000 BTU per pound and contains only 0.1 to 0.3 percent sulphur and 5% moisture.
Coal Mining	A demonstration mining program and a thorough complement of studies, have shown development to be technically, environmentally and financially sound. ASRC is presently developing markets and establishing financing to support commercialization of this vast resource. The relatively close proximity of the Pacific Rim nations make a natural choice for market penetration.

Ashland Coal, Inc.
Post Office Box 6300
Huntington, WV 25771

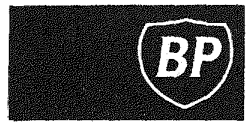
Ashland Coal, Inc.

Telephone: (304) 526-3333
Telex: 710-931-1907
Fax: (304) 526-3678
Chief Executive Officer: William C. Payne
International Sales Manager: Steven F. Leer
Domestic Offices: HUNTINGTON, WV: 2205 Fifth Street Road, Huntington, WV 25701
International Offices: FRANCE: Robert A. Dienhart, 20, Bd. De La Republique, 92210-St. Cloud TEL. 33-14-771-3730, FAX 33-14-771-3793, TELEX 842-25-0041

Ashland Coal, Inc. is an eastern coal company engaged in the marketing, mining, processing and distribution of high Btu, low-Sulfur bituminous coal. The company's operations include underground and surface mines; state-of-the-art processing and rail loading facilities; a truck-to-barge processing and loading facility serving the Ohio River system and the export facility (Dominion Terminal Associates) in Newport News, Virginia, serving export markets and customers on the eastern seaboard of the United States.

Product/Service	Description
Coal Mining, Marketing, Processing, and Exporting	Ashland Coal, Inc. is engaged in the mining, processing and sale of high Btu, low-sulfur steam coal, and markets its coal principally to electric utilities in the eastern United States and into the export markets.

BP Coal (USA) Inc.
200 Public Square
Cleveland, OH 44114-2375



BP COAL

BP Coal (USA)

Telephone: (216) 586-4141
Telex: 687-3241
Fax: (216) 586-4394
Chief Executive Officer: E. W. Parke, President
International Sales Manager: W. J. Kotsko, Director of Export and Met. Sales

BP Coal (USA) a coal mining and trading company through Old Ben Coal Company, operates Old Ben Mine 20 located in Mingo County, West Virginia, 55 miles south of Charleston, West Virginia. Current annual capacity is 1.2 million net tons of high volatile and high fluidity metallurgical coal. Three continuous miner sections are employed to extract coal. All production is cleaned in a modern preparation plant at mine site, where 50,000 tons of clean coal can be loaded in 10 days. Transportation from Mine 20 is via Norfolk and Western Railway, a subsidiary of Norfolk Southern Corporation Rail to tide water at Norfolk, Virginia. All of Mine 20 coal is high volatile bituminous "A" coal, coming from the Alma C seam. All the coal is washed and exhibits excellent thermal and metallurgical characteristics.

Product/Service	Description
Coal Mining	Typical Proximate Analysis: Moisture 7.0; Ash 5.8; Sulfur .90; Fixed Carbon 59.6; Volatile Matter 34.6; BTU 14,200; Free swelling index 8.5; Hardgrove index 50.
Coal Export	Plastic Properties: Max fluidity (DDPM) 28,000+; Initial softening temperature 400F; Temperature @ max fluidity 440F; Solidification temperature 480F Temperature range 80F.
	Auditbert-Arnu Dilatometer: % Maximum contraction - 25F; % Maximum dilation 150F; Initial softening temperature 350F; Maximum contraction temperature 400F.
	Ash Fusion Temperatures: Initial deformation: Reducing 2530F; Oxidizing +2700F; Softening (H=W): Reducing 2640F; Oxidizing +2700F; Hemispherical (H=1/2W): Reducing 2690F, Oxidizing +2700F; Fluid: Reducing +2700F; Oxidizing +2700F.

The Bright Coal Group
300 Greenbrier Road
Summersville, WV 26651



Bright Coal Corporation

Telephone: (304) 872-3000
Telex: 467052 BRIGHTAM CI
Fax: (304) 872-3033
Chief Executive Officer: William T. Bright
International Sales Manager: Ronald R. Tanner

The Bright Coal Group is a growth oriented, independently owned and operated bituminous coal mining and marketing company located in Central West Virginia. All coal is produced by independent contract mining companies operating with non-union work forces on Bright properties with The Bright Coal Group retaining exclusive marketing rights thereof. From an initial sales volume of 29,000 tons in 1976, The Bright Coal Group has evolved into a significant business with sales in excess of 2,000,000 tons in 1988. Shipments from The Bright Coal Group that are destined for export markets can originate on the N&W Railroad for transloading at Newport News, the Conrail Railroad for transloading at Baltimore or Philadelphia, the CSXT (B&O) Railroad for transloading at Baltimore, and the Eastern Inland Waterway System for transloading at New Orleans.

Product/Service	Description
Bituminous Coal	Specification Ranges: Moisture: 4-8; Volatile Matter: 26-34%; Ash: 10-18; Fixed Carbon: 48-54; Sulfur: 0.70-1.5; Ash Fusion Temp: 2400°F - 2800°F; BTUs: 11500-13000; Size: Stoker or Crushed Run of Mine.

Centralia Coal Sales Company
P.O. Box 478
Wilkes-Barre, PA 18703

Telephone: (717) 822-4135
Telex: 510-658-2615
Fax: (717) 824-1884
Chief Executive Officer: Joseph A. Frank
International Sales Manager: Joseph A. Frank, Jr.

Founded in 1947, Centralia Coal Sales Company is headquartered in Wilkes-Barre, in the heart of the Pennsylvania Anthracite Fields and well within reach of all the eastern coal reserves. Centralia Coal Sales Company is the exclusive sales agent for several large producers and represents a total of more than 30 producing companies in the Pennsylvania, West Virginia, and Kentucky. It is undoubtedly, the largest independent coal marketing company in the Anthracite industry. Multiple supply sources assure customers of a reliable, continuous source of high-grade coal that fully meets their specifications. Years of experience and the growing promise of coal insure that Centralia will be here to serve its customers for many years to come.

Product/Service	Description
Anthracite Coal	Anthracite coal has unique physical and chemical properties which make it valuable in the broad range of processes and applications including: A clean, slow burning, low sulfur fuel for heating and generating electric power, a low cost substitute for foundry and blast furnace coke, a reducing agent in the refining of metal ores, a raw material in the manufacture of cathode block, and carbon electrodes, source material for briquetting, an effective, long lasting filter media, a source for advanced synthetic fuels through gasification and liquefaction and for light oil and chemicals.

Coal Rep International
710 Starks Building
Louisville, KY 40202

Telephone: (502) 583-0086
Fax: (502) 587-7021
Chief Executive Officer: H. Jack Rutledge
International Sales Manager: Mary Eileen O'Keefe

Product/Service	Description
Coal Exporters	East Kentucky Coal Mining Operation.
Coal Mining	Export out of Newport News or New Orleans 13,000 BTU, 1% sulfur coal, 15,000,000 tons recoverable reserves. C & O Unit Train and Washplant Facility.

Coastal Coal Sales, Inc.
P.O. Box 1871
Roanoke, VA 24008

Coastal Coal Sales, Inc.
A SUBSIDIARY OF THE COASTAL CORPORATION

Telephone: (703) 983-0222, (800) 336-5722 (except VA)
Telex: 888415
Fax: (703) 983-0267
Chief Executive Officer: Robert J. Hummel
International Sales Manager: Robert J. Hummel

Coastal Coal Sales, Inc. is responsible for the marketing of over 15 million tons of coal and petroleum coke produced by other units of The Coastal Corporation as well as independent high quality producers. Its principle affiliates are ANR Coal Company, Brooks Run Coal Company, Enterprise Coal Company, Virginia Iron, Coal and Coke Co., Coastal States Energy Co., Southern Utah Fuel Co. and Utah Fuel Co. Coastal Coal Sales also represents Preston Energy Co., an independent producer. Coastal Coal Sales, Inc. is a financially stable company that is an integral part of the Coastal Corporation, an $8 billion, diversified energy company.

Product/Service	Description
Coal Exporters	Exporters of thermal and metallurgical grade coals through the Ports of Hampton Roads, VA, Los Angeles, CA, San Francisco, CA, New Orleans, LA, Mobile, AL, Baltimore, MD and Philadelphia, PA.
Coal Mining	A solid reserve base with major blocks in Kentucky, Utah, Virginia and West Virginia. Flexibility with modern mining facilities and state-of-the-art preparation plants.

Consolidation Coal Company
Consol Plaza
1800 Washington Road
Pittsburgh, PA 15241

Telephone: (412) 831-4382
Telex: 247-634
Fax: (412) 831-4571
Chief Executive Officer: B. R. Brown
International Sales Manager: Walter E. Schrage
Domestic Offices: NORFOLK, VA: 201 Granby Mall, Suite 216, Norfolk, VA 23510 TEL. (804) 627-6261, FAX (804) 625-5088, TELEX 240403 CONSOL NORF; BALTIMORE, MD: Consolidation Coal Sales Company Terminal, 3800 Newgate Avenue, Baltimore, MD 21224 TEL. (301) 631-7000, FAX (301) 631-7022
International Offices: BELGIUM: Godefroid Coal Trading and Shipping S.A., 37-41 Rue du Congress, Brussels 1000 TEL. 011-32-2-218-7220, FAX 32-2-218-6192, TELEX 846-21434

Consolidation Coal Company (Consol) operates 25 underground and surface mines in nine states and Alberta, Canada. The company is the second-largest coal producer in the United States and holds 6.1 billion tons in steam and metallurgical-grade coal reserves. More than 80 percent of Consol's annual production of more than 55 million tons is steam coal for electricity generation. Nearly 11 million tons of high-grade metallurgical coal is produced annually. Consol mines are linked to major rail routes or the inland waterway for shipment to domestic customers and to exporting points on both coasts and the Gulf of Mexico.

Product/Service	Description
Steam Coal	Consol has exported steam coal since the early 1900s. Today consol exports steam coal to eight countries from mines in northern West Virginia, southwestern Pennsylvania and eastern Kentucky. Exporting points are Consolidation Coal Sales Company's (CCSC) terminal in the Port of Baltimore or terminals in Hampton Roads, Virginia and New Orleans, Louisiana.
Metallurgical Coal	Consol exports high-quality metallurgical coals from mines in southwestern Pennsylvania, West Virginia and Virginia. Low and mid-vol coals from southern Appalachian reserves are rail-shipped to Norfolk, Virginia for export, and mid- to high-vol coal through Newport News, Virginia. Pittsburgh Seam high-vol is shipped through CCSC's Baltimore terminal via New Orleans.
Coal Research	Consol maintains the U. S. coal industry's largest and most complete coal research organization and facilities. Located near Pittsburgh, Pennsylvania, Consol Research & Development works to improve coal mining, processing and combustion technologies. Consol R&D's 1.5 million BTU/hr. pilot combustor, the only one of its kind in the world, can simulate a wide range of boiler configurations to help customers make optimum fuel choices.

(Continued on next page)

Consolidation Coal Company (Continued)

Transportation	Consol maintains a transportation and distribution group which coordinates coal shipments and quality control. Consol also provides complete terminaling services through CCSC's Baltimore terminal or through contractual arrangements with other exporting facilities. CCSC's terminal is serviced by two major U. S. rail carriers and has on-site ground storage of 12 million tons, which allows extensive coal blending capabilities and eliminates demurrage charges.

Cyprus Coal Company
9100 E. Mineral Circle
Englewood, CO 80112



Telephone: (303) 643-5100
Telex: 216190 CMCO UR
Fax: (303) 643-5757
Chief Executive Officer: Donald P. Brown, President
International Sales Manager: V. J. Wicks, III, Vice President, Sales and Marketing Services
Domestic Offices: CLAYMONT, DE: 1504 Society Drive, Claymont, DE 19703 TEL. (302) 798-7611, FAX (302) 798-1278
International Offices: Please contact company headquarters for further information.

Cyprus Coal Company is a subsidiary of Cyprus Minerals Company, a major producer of copper, molybdenum, gold, talc and specialty metals. Originally formed as Amoco Minerals Company in 1969, Cyprus Minerals was spun-off from Amoco in 1985. Since the spin-off, Cyprus Minerals Company has become the second largest U. S. copper producer; fifteenth largest coal producer; the world's largest lithium producer; and, one of the top three molybdenum producers. Cyprus Coal Company has eight mining operations (underground and surface) in six states, with a total annual production of 15MM tons of low and medium sulfur coal and a reserve base of over 1.5 billion tons of steam and metallurgical coal. Cyprus' customers include major industrials, utilities and steel companies domestically and internationally.

Product/Service	Description
Coal Mining	Waynesburg, PA: Steam & met coal: 13,200 Btu/lb, 6% ash, 1.2%-1.8% S, 35% Vol, 8 fsi, 28,000 DDPM Fluidity
Coal Exporters	Craig, CO: Steam coal: 10,500 Btu/lb, 8% ash, 0.3%-0.4% S
	Mt. Carbon, WV: Steam coal: 12,800-13,300 Btu/lb, 9%-10% ash, 0.7%-3.0% S
	Bulan, KY: Steam coal: 12,000-13,000 Btu/lb, 8.5%-12% ash, 0.9%-1.5% S
	Paonia, CO: Steam coal: 11,500 Btu/lb, 7% ash, 0.4% S
	Price, UT: Steam coal: 11,500-12,200 Btu/lb, 6.5%-11% ash, 0.5%-0.75% S
	Hanna, WY: Steam coal: 11,300 Btu/lb, 5% ash, 0.5% S
	Oak Creek, CO: Steam coal: 11,200 Btu/lb, 10% ash, 0.5% S

Farrell-Cooper Mining Company
P.O. Box 1947
6001 South Zero
Fort Smith, AR 72902

FARRELL-COOPER MINING COMPANY
Mining Construction

Telephone: (501) 646-4366
Fax: (501) 646-3220
Chief Executive Officer: William J. Cooper
International Sales Manager: William J. Cooper
International Offices: Please contact company headquarters for further information.

Farrell-Cooper Mining Company is in the business of mining, transporting and exporting bituminous coal and cannel coal for industrial fuel and domestic home heating fuel. We operate coal loading facilities on the Arkansas River (1,500 ton barges), but mainly at the Port of Corpus Christi, Texas. At Corpus Christi, we handle product for export as well as product being imported.

Product/Service	Description
Coal Exporters	Export facility is located adjacent to Port of Corpus Christi. The port's depth is 45 feet and is the deepest port on the Gulf of Mexico.
Coal Mining	Operates two surface mines in the State of Oklahoma on Low Volatile and High Volatile Bituminous Coal. Operates two surface mines in the State of Texas on a High Volatile, Low Ash Cannel Coal under the name of Farco Mining of Texas, Inc. All coal mines are equipped with coal washing facilities.
Coal Transport	All of our mines are equipped with railroad tipples in addition to major highway access.

Foreston Coal Corporation
5 Dakota Drive
Lake Success, NY 11042

FORESTON
COAL
CORPORATION

Telephone: (516) 436-6000
Telex: 6852607, 224024
Fax: (516) 437-6012
Chief Executive Officer: Herbert Kobin
International Sales Managers: Stephen C. Miller, Theodore Sohnen
Domestic Offices: BLUEFIELD, WV; PHILIPSBURG, PA; HAZELTON, PA; GRAFTON, WV; CEREDO, WV

Founded in 1919, Foreston is a leading exporter of bituminous and anthracite coals, serving the steel, electrical utility, cement, industrial and space heating markets.

Product/Service	Description
Coal Export	Foreston exports from the East coast and Gulf coast ports, and has its own barge loading facility on the Kanawha River in West Virginia. Foreston's field representatives observe all facets of loading from mine to vessel, insuring the customers exact coal requirements. Foreston also has field offices which serve as the base for its procurement and quality control operation.

Imperial-Pacific Investments, Incorporated
405 Capitol Street, Suite 607
Charleston, WV 25301

IMPERIAL·PACIFIC INVESTMENTS INCORPORATED

Telephone: (304) 343-6550
Fax: (304) 343-9849
Chief Executive Officer: Robert C. Gibson
International Sales Manager: William F. Davison

Imperial-Pacific Investments, Inc. is a privately held company incorporated in the state of West Virginia. Wholly owned subsidiaries of IPI are Winchester Coals, Inc., Princess Susan Coal Co., and Hawks Nest Mining Co. IPI is a full service coal mining and shipping company delivering steam and metallurgical coal to domestic and international customers. IPI is able to originate shipments via rail or water.

Product/Service

Coal Exporters

Coal Mining

Coal Transport

Ingram Coal Company
4400 Harding Road
Nashville, TN 37205

INGRAM

Telephone: (615) 298-8300
Telex: 555130
Fax: (615) 298-8350
Chief Executive Officer: Frank M. Michitti
International Sales Manager: W. Alexander Steele, III
Domestic Offices: RICHMOND, VA: 9601 Gayton Road, Richmond, VA 23233 TEL. (804) 741-6093; PIKEVILLE, KY: Johns Creek Coal Company, Meta, KY 41501 TEL. (606) 631-1000
International Offices: SCOTLAND: Delta Sales & Marketing Inc., 1 Blythswood Square, Glasgow G2-4AD, FAX 698-740883

Ingram Coal Company sales personnel have extensive knowledge of domestic and overseas markets and are active in them daily. Steam, stoker and other specialty coals are produced, prepared and shipped through its Johns Creek Division.

Product/Service	Description
Coal Mining	Through its Johns Creek Division the Company owns and operates a 600,000 ton per year facility near Pikeville, Kentucky.
Coal Exporter	The Company regularly trades in steam and metallurgical coals to Europe and Asia.

K-Fuel Partnership
1999 Broadway/Suite 2505
Denver, CO 80202

K-FUEL® PARTNERSHIP

Telephone: (303) 293-2992
Telex: 550233 T VENNERS DVR
Fax: (303) 293-8430
Chief Executive Officer: Ted Venners
International Sales Manager: Ted Venners
Domestic Offices: GILLETTE, WY: K-Fuel Processing Facility and Laboratory, P.O. Box 1777, Gillette, WY 82717 TEL. (307) 687-1013, FAX (303) 687-1635

K-Fuel Partnership was formed in 1984 to market and license the K-Fuel technology worldwide. On-going research and development, funded by the Partnership, has taken the technology through the bench-top, pilot plant, and full-scale demonstration facility phases, and into commercialization at the Fort Union Mine near Gillette, Wyoming. The Gillette facility includes a state-of-the-art laboratory, where feedstock evaluation and process and product analysis allows for optimum plant operation and a custom-made end product.

(Continued on next page)

K-Fuel Partnership (Continued)

Product/Service	Description
Advanced Utilization	Low-rank feedstocks, and particularly subbituminous coals and lignites, require derating of capacity or costly equipment modifications in order to meet boiler requirements and ever-changing environmental restrictions. These feedstocks are difficult to handle and expensive to transport because of their high moisture content and combustibility. Using a proven, patented, advanced coal beneficiation technology that economically upgrades low-rank feedstocks, the high-Btu, low sulfur, low moisture, environmentally acceptable K-Fuel product addresses those problems.
Coal Technology	The K-Fuel process, a proven patented, advanced coal beneficiation technology that economically upgrades a variety of low-rank feedstocks, provides the utility or industrial user with a high Btu, low sulfur, low moisture, environmentally acceptable solution to their fuel requirements. This technology is available for licensing throughout the world.
Coal Industry	Low-rank coal reserves are abundant throughout the world; however, users prefer high-Btu coal for their boilers. The K-Fuel process, a proven patented, advanced coal beneficiation technology that economically upgrades low-rank coals, providing a high-Btu, low sulfur, low moisture, environmentally acceptable product. This technology is available for licensing throughout the world.
Coal Exporters	K-Fuel, produced using a proven, patented, advanced coal beneficiation technology that economically upgrades a variety of low-rank feedstocks, is a viable, high-btu, low sulfur, low moisture energy source for utility and industrial users. Produced to meet the user's boiler specification and having stable handling and storage characteristics, K-Fuel is competitively priced in the coal market.
Facility Construction	The K-Fuel process, a proven, patented, advanced coal beneficiation technology that economically upgrades a variety of low-rank feedstocks, provides the utility or industrial user with a high-Btu, low sulfur, low moisture, environmentally acceptable solution to their fuel requirements. K-Fuel Partnership can provide the technology license, construct the site-specific facility, train personnel, and/or operate the facility.

Kerr-McGee Coal Corporation
P. O. Box 25861
Oklahoma City, OK 73125



Telephone: (405) 270-2551
Telex: 747-128
Fax: (405) 270-3123
Chief Executive Officer: Peter B. Lilly, President
International Sales Manager: M. Toby Muller, Vice President - Marketing

Kerr-McGee Corporation is a diversified energy and chemicals company. The Coal Corporation, a wholly-owned subsidiary of Kerr-McGee Corporation, produced 17.3 million tons in 1988. The company mines and markets steam and metallurgical coal from mines in the western and midwestern U.S. The company also owns substantial underdeveloped coal reserves in Illinois, Oklahoma and West Virginia.

Product/Service	Description
Coal Mining	The company mines and markets 8,600-Btu, low-sulfur coal from its Jacobs Ranch Mine in the South Powder River Basin, and 12,000-Btu, 1.3% sulfur coal from its Galatia Mine in southern Illinois.
Coal Exporter	Kerr-McGee coal is exported to steam and metallurgical markets via West and Gulf Coast ports.

Maran Coal Corporation
1114 Avenue of the Americas
26th Floor
New York, NY 10036

Telephone: (212) 704-9944
Telex: 239530 (MARAN UR)
Fax: (212) 398-9031
Chief Executive Officer: Mark R. Joseph
International Sales Manager: Mark R. Joseph

Exporters of metallurgical and steam coals, coke and coke breeze from all major producing areas and ports of the United States.

Product/Service	Description
Coal Exporters	Exporters of metallurgical and steam coals, coke and coke breeze.

Mobil Coal Producing Inc.
Box 17772
Denver, CO 80217

Telephone: (303) 298-2960
Telex: 910-9312633
Fax: (303) 298-2974
General Manager and VP: R. G. (George) McGinn
Vice President--Marketing: J. R. (Bob) Anderson
International Offices: INDONESIA: M. R. (Mike) Wolfhard, Mobil Oil Indonesia Inc., Post Bag 400, Jakarta 10002, Ratu Plaza 27th Floor TEL. 61-21-711211, TELEX 47431 MOI/JKT, FAX 61-21-7202068

Mobil Coal Producing Inc., an established coal producer and marketer, commenced production at its Caballo Rojo Mine in Wyoming's Powder River Basin in 1982. The Mine has a current capacity of over eight million tons per year with the potential to increase its permitted target of 20 million tpy. Coal from Caballo Rojo was successfully shipped to Taiwan Power Company in 1988 through the Roberts Bank terminal in British Columbia. Mobil Coal Producing Inc. is also developing a resource in Indonesia with Nissho Iwai as joint venture partner in its P. T. Berau project. Production is planned from the Berau Mine in early 1991 to supply both the Indonesian and Pacific Rim marketplaces.

Product/Service	Description
Coal Exporters	U. S. production from the Caballo Rojo Mine is low ash, low sulfur with a heating value of 8500 BTU/lb. Deliveries can be made on either the BN or the C&NW/UP railroads. Transshipment via the Roberts Bank Terminal is proven.
Coal Mining	Low ash, low sulfur, good quality coal from Kalimantan, Indonesia is planned for early 1991 shipment.
Coal Transport	Mobil can assist end users with their transportation requirements.
Technical Services	Mobil utilized state-of-the-art computer modeling and retains highly qualified combustion experts to provide domestic and international customers technical coal utilization assistance.

National Mines Corporation
P.O. Box 12022
333 W. Vine Street, Suite 1000
Lexington, KY 40579



Telephone: (606) 233-4141
Telex: 213475
Fax: (606) 281-8757
Chief Executive Officer: Vaughn R. Knapp, President
International Sales Manager: Herman L. Mays, Vice President, Marketing and Sales

A subsidiary of National Steel Corporation, the company began coal production in the early 50's as an integrated source for cokemaking. Today, 80% of shipments are to commercial domestic and export receivers, offering various high-quality grades of metallurgical, sized (industrial), and thermal coals. Mines and preparation facilities are located in Washington Co., PA, Wyoming Co., WV, and Knott Co., KY, with site capacities of from 500,000 to 1.6 million tons per year. Unit-train loading capability at PA and KY locations. Coals are deep-mined and tend to be low-to-mid sulfur content. UMWA-affiliated and professionally staffed.

Product/Service	Description
Coal Exporters	Knowledge of international marketplace-mainland Europe, Scandinavia, Pacific Rim, Canada, South America-port facilities, transportation, storage, handling.
Coal Mining	Full range of experience, including exploration, development, all aspects of mine and plant operation, reclamation, safety.
Facility Operation	Capable of previously enumerated aspects of management and engineering.

NERCO Coal Corporation
2043 Woodland Parkway
Suite 300
St. Louis, MO 63146



Telephone: (314) 872-2477
Telex: 403180, NERCO STL
Fax: (314) 993-8391
Chief Executive Officer: Charles C. Adams, President
International Sales Manager: Patrick J. Panzarino, Vice President (International Sales)

NERCO Coal Corp. is the coal mining and development subsidiary of NERCO, Inc., a New York Stock Exchange traded, Fortune 500 company. The company is one of the largest coal producers in the United States and has coal reserves and mining operations in both the western and eastern parts of the country. In 1988 NERCO Coal Corp. sold more than 31 million tons of coal, of which 24 million was from its own mines. The company is actively engaged in the export market.

Product/Service	Description
Coal Mining, Exporting, and Transportation	Powder River Basin, Midwestern, and Eastern United States coals for export.

Peabody Development Company
800 Liadley Tower
800 Lee Street
Charleston, WV 25301

Telephone: (304) 340-1720
Telex: 710-938-0001; Peabody CHW UD
Fax: (304) 340-1749
Chief Executive Officer: R. H. Quenon
International Sales Manager: David D. Turnbull
Domestic Offices: St. LOUIS, MO: Peabody Development Company, Inc., Saint Louis Place, 12th Floor, 200 North Broadway, St. Louis, MO 63102, P.O. Box 14222, St. Louis, MO 63178 TEL. (314) 342-3400, TELEX 910-761-0477, FAX (314) 342-3422

Peabody Development Company and its subsidiary, Castner, Curran & Bullitt, Inc., together market more coal than any other U.S. organization. Domestic and export sales in 1988 were 81.5 million short tons of steam and metallurgical coal from operations in 10 states. The company is the principal sales agent for Peabody Coal Company, Rochelle Coal Company, Powder River Coal Company, and Eastern Associated Coal Corp. The majority of the company's export shipments originate from West Virginia and are transloaded through Dominion Terminal. Peabody owns or controls 21.5 percent of Dominion Terminal.

Product/Service	Description
Customer Services	The Development Company serves customers in 14 countries with products meeting a wide range of specifications. Development Company personnel identify coal sourcing options meeting customer specifications; analyze and identify transportation routes to maximize efficiency and economy; arrange product test burns; prepare coal blends; and provide technical assistance.

Pecten Coal International
7200 Glen Forest Drive
Suite 200
Richmond, VA 23226

Telephone: (804) 673-9001
Fax: (804) 673-9010
Chief Executive Officer: Ken G. Cloninger, President
International Sales Manager: Robert H. Scott, Vice President
Domestic Offices: HOUSTON, TX: 200 N. Dairy Ashford, Houston, TX 77079

Pecten Coal International, Inc. is a subsidiary of Shell Mining Company responsible for international sales and marketing of steam and metallurgical coals from Shell's mining operations throughout the U.S. Shell Mining began coal production in 1977 and has grown rapidly to become one of the ten largest coal producers in the U.S. with sales and production exceeding 25 million net tons in 1988. Shell entered the export market in 1987 and is now a major supplier to customers in Europe and the Far East.

Product/Service	Description
Coal Exporters	Through representation of Shell Mining Company on an international basis, Pecten Coal International provides sales and marketing services for a wide variety of high quality coals form its operations in Appalachia, the Midwest and the Powder River Basin, shipping through Shell's Pier IX Terminal in Newport News, Lamberts Point, and the U.S. Gulf.

Pittston Coal Export Corp.
One Pickwick Plaza
P. O. Box 8900
Greenwich, CT 06836-8900

PITTSTON Coal

Telephone: (203) 622-0900
Telex: I.T.T. TELEX CT 421129
W.U.I. TELEX CT 6819126
Fax: (203) 622-0590
Chief Executive Officer: Thomas F. Tabacchi
International Sales Managers: Sean J. Casey, Joseph P. McEnaney
International Offices: Please contact company headquarters for further information.

Pittston Coal Export Corporation is a subsidiary of 'The Pittston Company' engaged in the sale of bituminous coal in the Canadian and overseas market. Today, Pittston owns more than 1.3 billion tons of high quality metallurgical and steam coal reserves in the Appalachian region. During the past 30 years the corporation has exported over 200 million tons and has been Americas premièr shipper of the highest quality coking coal in the overseas market.

Product/Service	Description
Coal Exporter	Pittston Coal Export Corp. offers premium grade bituminous metallurgical and steam coals, backed by a worldwide reputation for dependable service, reliability and consistently high quality products - the characteristics that have made "Pittston" products the acknowledged leader in its field.

Primary Coal, Inc.
666 Fifth Avenue
New York, NY 10103

Telephone: (212) 581-9200
Telex: 232208
Fax: (212) 541-5330
Chief Executive Officer: Lawrence Perlstein
International Sales Manager: Uwe Kuepper
International Offices: AUSTRALIA: Jardine Fleming House, 6th Floor, 19-31 Pitt Street, Sydney, NSW 2000 TEL. 61-2-2516877

Primary Coal sells coal and coke to the international metallurgical industry and to utilities and industrial users. Primary has equity positions and contractual relations with coal mines, loading facilities and companies providing inland transportation. Using these resources, Primary Coal can ship coal and coke in the most cost-effective manner from all the major worldwide suppliers. An experienced staff located in New York, with branch offices in the coal-producing regions, is available for advice at all times. Its expert consultation is an invaluable aid in the purchase of coal and coke for shipment through U.S. ports.

Product/Service	Description
Coal Exporter	In addition to exporting from the U.S.A., Primary Coal's office in Sydney, Australia efficiently coordinates shipments from that country's large coal suppliers to the coal loading ports of Queensland and New South Wales.

Stinnes Coal Company, Inc.
750 Third Avenue
New York, NY 10017



Telephone: (212) 986-1515
Telex: 236767A STCC UR
Fax: (212) 949-7436

Chief Executive Officer: Michael T. Madden, President
George A. McClellan, Senior Vice President
Robert P. Yowell, Assistant Vice President

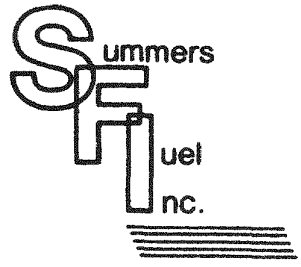
Domestic Offices: KY: Stinnes Coal Company, Inc., 131-27 U. S. Rt. 23, Catlettsburg, KY 41129 TEL. (606) 739-8441, FAX (606) 739-8443

International Offices: WEST GERMANY: Stinnes Intercoal GmbH, Humboldtring 15, Mulheim/Ruhr 12, 4330 TEL. 2087-4940, TELEX 856095 STC D, FAX 208-494-698; WEST GERMANY: HCM Intercoal GmbH, Humboldtring 15, Mulheim/Ruhr 12; WEST GERMANY: Stinnes Intercoal GmbH, Ballindamm 17, Hamburg 2000 TEL. 40-301-0030, TELEX 21-63-121 STI D, FAX 30-10-0340; ENGLAND: G. Harbottle & Co., Ltd., Block "A" Stottish Life House, Archbod Terrace, Newcastle upon Tyne NE21DA TEL. 91-281-7735, TELEX 53406 GEHAR, FAX 91-281-1884; NETHERLANDS: Stinnes Intercarbon B.V., Beurs Building, 7th Floor, Room no. 760-761, Beursplain 37, Rotterdam 3011 AA P.O. Box 30157, 3001-DD Rotterdam TEL. 10-405-3111, TELEX 25155 STI, FAX 10-405-5026; SPAIN: Intercarbon Espana, S. A., Alcala 93-4-a, Madrid 28009 TEL. 1-522-7069 TELEX, 22082 STINN, FAX 1-43-19780; ITALY: Agenzia Caarboni S.R.L., Corso Aurelio Saffi 15/3, Genova 16128, Casella postale 1425, 161121 Genova TEL. 10-566773, 10-55-91606, TELEX 271392 INTRA, FAX 10-53-2871; BRAZIL: Stinnes Intercarbon do Brazil, Avenida Rio Branco, 52, 15th Floor, CEP 20090, Rio de Janeiro TEL. 21-223-2118 TELEX, 21-253-4342, FAX 21-253-4679; SINGAPORE: Stinnes Intercoala Pte., Ltd. 18/06 Goldhill Plaza, 1130 TEL. 25-18755, TELEX 28921 STINCO, FAX 253-4030; AUSTRALIA: Stinnes Intercoal Australia, PTY, Ltd. 17 Black's Road, Arcadia, N. S. W. 2159 TEL. 2-653-1533, FAX 2-653-2159

Stinnes Coal Company is part of a complex network, namely Stinnes Intercarbon, AG, which is a subsidiary of VEBA, AG, a privately held, wholly owned German-based company which is one of the major independent coal traders in the markets of the world. Our coal trading activities are worldwide. We export coal from the Federal Republic of Germany, the German Democratic Republic, the USA, Canada, Columbia, Venezuela, South Africa, Australia, Poland, the CSSR, the USSR and the People's Republic of China. We import into the Federal Republic of Germany, other European countries, North Africa, Japan, South America, Canada, the Middle and Far East. We supply coal to power stations, steel mills, foundries and other major end users. We also furnish the industrial heating and the domestic fuel markets with whatever type of coal is required.

Product/Service	Designation	Description
Coal Exporters Coal Transport Financing Shipping		The product range we trade in includes the following categories: Steam coal, industrial coal, coking coal, foundry coke, furnace coke, coke beans for ferro alloy producers, coke freeze, briquettes as well as household coal. Our long standing relations with our suppliers, our own trading companies at home and abroad and an efficient transportation system guarantees reliable and continuous supplies. We offer producers and suppliers a distribution network with representations in all of the world's major coal using regions. In conjunction with our affiliated companies, we can offer our own storage and transportation as well as screening and blending facilities.
	Curtis Bay Company	Located in Baltimore, MD, this terminal transfers coal from rail to ground storage for loading to vessel or barge for domestic or export movement.

Summers Fuel, Inc.
Suite 1201
28 Allegheny Avenue
Towson, MD 21204



Telephone: (301) 825-8555
Telex: 908256
Fax: (301) 828-8657
Chief Executive Officer: William N. Clements, II
International Sales Manager: William N. Clements, II

Summers Fuel has been marketing coal since 1962. Sales represent 80 percent domestic shipments to U.S. markets and 20 percent to the export market, primarily to Japan. Summers Fuel has equity and financial interests in low, medium and high volatile mines serving Philadelphia, Baltimore, Newport News and Norfolk for both steam and metallurgical coals.

Product/Service	Description
Coal Exporters	Summers Fuel Inc. is a coal trader with steam and metallurgical coal available from mines in Pennsylvania, West Virginia, Virginia, and Maryland. Summers Fuel exports coal from the ports of Baltimore, MD; Philadelphia, PA; and Lamberts Point and Newport News, both in Hampton Roads, VA.

Total American Mining, Inc.
333 Clay Street, Suite 4800
Houston, TX 77002

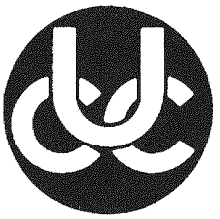


Telephone: (713) 655-7900
Telex: 216195
Fax: (713) 650-8184
Chief Executive Officer: James J. Graham
International Sales Manager: Kenneth L. Brockway, Marketing Manager
Domestic Offices: GILLETTE, WY: P. O. Box 2737, Gillette, WY 82716 TEL. (307) 682-7999
International Offices: FRANCE: Francois Fiatte, Total Mines Nucleaire, Direction Charbon, Tour Mirabeau, 39-43 Quai Andre' Citroen, 75739 Paris Cedex 15 TEL. 33-1-45-78-33-33, FAX 33-1-45-78-36-24; HONG KONG: Claude Bouilly, Total Energy Services (Hong Kong) Ltd., Room 2110, Hutchison House, 10 Harcourt Road TEL. 85-2-5-22019, FAX 85-2-5-8452093

Total American Mining, Inc. is a corporate affiliate of Total Compagnie Francaise Des Petroles, the major French energy group. Total's diversification into mining began in 1975 and now includes coal, uranium and precious metals activity worldwide. Coal is produced in Australia, South Africa and in the United States at Fort Union Coal Company. General Management of coal marketing, trading and shipping is provided by Total Mines Nucleaire. Total Energy Services (Hong Kong) Ltd. was established in 1986 to facilitate business development in the Far East. Total Group is the major shareholder and holds the chairmanship of the Cipha Terminal in Le Havre, France.

Product/Service	Description
Coal Exporters Coal Mining Coal Transport	Fort Union Coal Company is located in Campbell County near Gillette, Wyoming. The surface mine has a reserve base of 200 million Coal Mining tons and a permitted annual capacity of 8.2 million tons. Unit train rail service is provided by Burlington Northern (Union Junction). Typical as-received specifications: 8,200 BTU, 5% Ash, 31% Moisture, 0.4% Sulfur.

United Coal Company
Glenway Avenue
P. O. Box 1280
Bristol, VA 24203

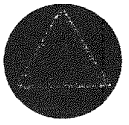


Telephone: (703) 466-3322
Telex: 510-580-2108
Fax: (703) 466-5641
Chief Executive Officer: Charles T. Carter
International Sales Manager: Ralph D. Haring
International Offices: Please contact company headquarters for further information.

United Coal Company began operations in 1970 with production of 415,000 tons of coal. By 1988 annual production and sales exceeded 11 million tons. United produces a variety of high quality steam and metallurgical coals from its over 1 billion tons of controlled reserves. United exports both steam and metallurgical coal through the major East Coast and Gulf ports. United Coal Company operates both surface and underground mines in Kentucky, Virginia and West Virginia.

Product/Service	Description
Coal Exports	Steam and Metallurgical coal is exported through East Coast ports via the CSX and Norfolk Southern railways. United maintains good commercial relationships with ground storage terminal operations in Newport News, Virginia and the lower Mississippi.
Coal Mining	United's five coal producing divisions operate independently with their own engineering, preparation and loading facilities, quality control laboratories and repair shops.

Westmoreland Coal Company
700 The Bellevue
200 South Broad Street
Philadelphia, PA 19102



Telephone: (215) 545-2500
Telex: (215) 670-4210
Fax: (215) 735-7175
Chief Executive Officer: Pemberton Hutchinson, President
International Sales President: John V. Bickford
Russell J. Stewart, Vice President
Domestic Offices: CHARLOTTE, NC: 5700 Executive Center Drive, Suite 109, Charlotte, NC 28212; NEWPORT NEWS, VA: Export Shipping Office, 96-24th Street, P.O. Box 536, Newport News, VA 23607

Westmoreland Coal Company, America's oldest independent coal company, is a producer and marketer of low sulfur coal mined primarily from the Central Appalachian region with reserves totalling nearly one billion tons. Westmoreland Coal Sales Company, a wholly-owned marketing and sales subsidiary, excels in export and domestic sales of high quality metallurgical and steam coals from Company mines and other producers. Westmoreland provides its customers with expert transportation management, transhipping internationally through the Gulf of Mexico and Dominion Terminal, in Newport News, VA, another company subsidiary. In addition, the Company also exports coal through non-affiliated piers. Quality assurance is also provided by the Company's own coal research laboratory, Gallagher Coal Research Center.

Product/Service	Description
Hampton/Ferrell Coal	High Grade Metallurgical and Steam: Premium high volatile coals with excellent coking characteristics for efficient metallurgical coke production. High quality steam coal used domestically and internationally.
Winding Gulf/Bonny	Premium Metallurgical: Premium low volatile, low ash coal with excellent coking characteristics for efficient metallurgical coke production.
Quinwood	Premium Grade, Medium Volatile: A very low ash, low sulfur medium volatile coal used for coke making. Its low ash allows this coal to be used as a reductant by the ferro-alloy industry. Also used for industrial applications.
Wentz	High Grade, Metallurgical and Steam: A versatile, premium quality, low sulfur coal used in coke-making for its low ash and fluidity, or for steam purposes due to high heat and sulfur properties or it can be sized for stoker applications.

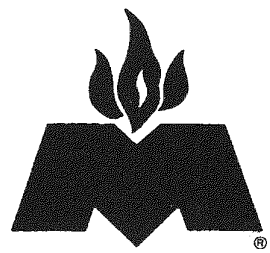
(Continued on next page)

Westmoreland Coal Company (Continued)

Transloader	Premium Steam: High quality, low sulfur steam coal sold to utilities. The Transloader is capable of storing 84 thousand tons of clean or ROM coal from Company mines with nuclear analyzing, blending and unit train loading ability.
Kentucky Criterion	Premium Steam: High quality, low sulfur steam coal for industrial and utility steam applications.
Dominion Terminal Associates	Export shiploading facility: This terminal provides ground storage and product blending, inbound and outbound weighing and sampling capabilities and rapid vessel loading equipment.
Cleancoal Terminal	Rail to river barge transloading facility: River terminal and ground storage facility used to blend and load coal for inland movement to export terminals located in the Gulf of Mexico.
Gallagher Coal Research Center	Coal quality and testing services: Lab provides variety of analytical tests for both met and steam coal customers including petrography, fluidity, and Btu, volatile matter, ash and sulfur determinations.

Coal Mining: Firms engaged in coal mining.

A. T. Massey Coal Company, Inc.
4 North Fourth Street
Richmond, VA 23219



Telephone: (804) 788-1800
Telex: 240503
Fax: (804) 788-1870
Chief Executive Officer: E. Morgan Massey
International Sales Manager: J. Morton Eggleston

A. T. Massey Coal Company, Inc. and its related companies ship more coal from Central Appalachia than any other supplier. In 1988, 25.6 million tons of coal were delivered to more than 180 Massey Coal customers worldwide. Beginning as a coal trading company in 1916, A. T. Massey Coal Company, Inc. is now the coal mining subsidiary of Fluor Corporation, one of the world's largest engineering, construction and maintenance firms. Our affiliate, Fluor Daniel is currently rated #1 among the top 400 U.S. construction companies by Engineering News Record. It provides global capability from more than 50 offices located around the world. Massey Coal is uniquely positioned to supply a diversity of products. With fifteen mining complexes located throughout the Appalachian coal fields, Massey Coal operations are on all major rail systems, have access to river and truck delivery, and lead the industry in preparation plant efficiency and quality control. Massey Coal also represents a wide-ranging network of independently produced coals. A 710 million ton reserve base assures Massey Coal customers of a continuing supply of high quality metallurgical and steam coal.

Product/Service	Description
Coal Export Coal Mining	Massey Coal Export Company serves customers in more than 30 countries throughout the world. Shipping from all major East Coast and Gulf Coast terminals, we move roughly 10 percent of all seaborne U.S. metallurgical coal and are rapidly approaching the same market share for steam coal. Since 1984, Massey Coal Export's sales have increased 70 percent, reaching 7.5 million tons in 1988. This growth in both metallurgical and steam coal sales demonstrates our ability to compete successfully in the highly competitive world market, where quality and price make a difference.
Technical Services	Steel industry customers throughout the world have come to rely on Massey's quality assurance program, a program second to none in the coal industry. Every Massey Coal metallurgical mining operation has implemented Statistical Process Control to insure the quality product our customers require. We combine marketing capability with technical expertise to locate the most economical coals for customers' operations. Our experts look at more than delivered product cost; they look at resultant coke quality, blast furnace performance, and an improved bottom line for the customer. This innovative approach is paying off so well for our metallurgical coal customers that we are expanding its application to steam coal sales.

AMAX Coal Industries, Inc.
251 N. Illinois Street
P.O. Box 967
Indianapolis, IN 46206-0967

AMAX COAL INDUSTRIES, INC.
AMAX

Telephone: (317) 266-1500
Fax: (317) 266-1527
Chief Executive Officer: Douglas H. Ashby
International Sales Manager: John O. Bodman
International Offices: Contact company headquarters for more information.

AMAX Coal Industries, Inc., (a subsidiary of AMAX Inc.) is headquartered in Indianapolis, Indiana. AMAX is the United States' third largest coal producer and is known throughout the industry for its innovative mining techniques and technological advances. In 1988, the company produced 36.9 million tons of coal. AMAX Coal Industries operates mines in Indiana, Illinois and Wyoming. The company's two mines in Wyoming are among the nation's largest coal mines. AMAX Coal Sales Company is the company's marketing arm, and provides complete coal marketing services; including transportation assistance, technical support, contract administration and market development. Electric utility and industrial customers who purchase coal through AMAX can rely on an experienced and qualified staff for technical expertise in all areas of coal marketing.

Product/Service	Description
Dried Coal	AMAX has constructed the first large-scale coal drying facility in the nation at its Belle Ayr Mine in Wyoming. The 1.5 million tons per year plant reduces the moisture content of the coal from 30 percent to 10 percent and increases its heating value from approximately 8,500 Btu per pound to nearly 10,750 Btu per pound.

Andalex Resources, Inc.
1201 Hurstbourne Place
9300 Shelbyville Road
Louisville, KY 40222

ANDALEX
RESOURCES, INC.

Telephone: (502) 426-7322
Telex: 204 245 ANDALEX LVL
Fax: (502) 429-0007
Chief Executive Officer: Gary Livingstone
International Sales Manager: W. Keith Smith, Vice President
Domestic Offices: MADISONVILLE, KY: Highway 41A North, Madisonville, KY; DENVER, CO: 1515 Arapahoe St., Denver, CO

Andalex Resources, Inc., is a private company formed by a family which has been mining coal continuously for over 150 years. Andalex Resources comprises four active mines and current production capacity is in excess of four million tons per year. The company has earned recognition as a reliable large-volume long-term supplier to industry and public utilities in the United States and overseas. A primary company goal is the flexibility necessary to respond to customers quickly and cost effectively.

Product/Service	Description
Coal Mining/ Coal Exporters	Madisonville, KY: An area surface mine operation with long-term and spot sales in excess of 2 million tons. Cimarron can load on CSX or P&L rail lines with rail-to-barge transfer at several river ports for gulf shipments. Price, UT: Operates underground drift access, room and pillar mines in the book cliffs coal fields of Utah. Sales include long-term and spot contracts to utility and industrial customers. Is a major coal supplier to the far east primarily through the port of Los Angeles. Beverly, KY: Surface and underground mining operations located in eastern Kentucky with production capacity of 1.5 million tons. Has proven to be a competitive supplier to industrial and utility customers from Michigan to Florida. 4-hour unit train loadout capability on CSX rail. Export shipments through New Orleans, LA; Mobile, AL; Charleston, SC. Frostburg, MD: Located in Western Maryland is an area surface mine producing low volatile coal. Currently supplying domestic customers, the Frostburg mine has been a successful supplier to the European market. Coal is shipped through ports in Baltimore and Philadelphia.

Anker Energy Corporation
Rt. 12, Box 245
Morgantown, WV 26505

ANKER

Telephone: (304) 296-1616
Fax: (304) 291-3692
Chief Executive Officer: John J. Faltis
International Sales Manager: Neil Cregg
Domestic Offices: FLORHAM PARK, NJ: 26 Columbia Turnpike, Suite 100, Florham Park, NJ 07932 TEL. (201) 822-0818; KENOVA, WV: 1230 Chestnut Street, Kenova, WV 25530 TEL. (304) 453-3555

Anker Energy is a producer, broker and trader of U.S. origin coals affiliated with Anker Kolen, a coal trading company in the Netherlands. We are equipped to source coal domestically in the U.S. and internationally through our affiliate. We produce in excess of 2 million annual tons with annual sales of 4 to 6 million tons. In addition, we are equipped to buy, sell, mine and arrange for sales of coal f.o.b. mine, f.o.b.t., CIF or CF, as the case may be.

Product/Service	Description
Coal Exporters	Coal exports through U.S. East Coast and New Orleans. All grades of coal.
Coal Mining	Domestic U.S. producer of 2 million plus annual tons in West Virginia, Pennsylvania and Maryland.

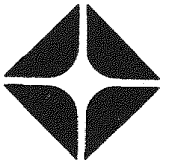
Arch Coal Sales Company, Inc.
CityPlace One
CityPlace Drive
St. Louis, MO 63141

Telephone: (314) 994-2700
Telex: 5106011393
Fax: (314) 994-2719
Chief Executive Officer: R. E. Samples
International Sales Manager: Sheridan A. Glen

Arch Coal Sales Company, Inc. is the international coal sales subsidiary of Arch Mineral Corporation. Arch Mineral Corporation is a coal mining company. It was formed in 1969 and has over 3,500 employees.

Product/Service	Description
Coal Exporters	The company currently sells almost 20 million tons annually of high quality steam and metallurgical coal from mines in Illinois, Kentucky, West Virginia and Wyoming. Arch has the capability of exporting coal from port facilities in: Newport News and Norfolk, VA; New Orleans, LA; Charleston, SC; Mobile, AL; and Los Angeles/Long Beach, CA.
Coal Mining	

ARCO Coal Company
555 Seventeenth Street
Denver, CO 80202



Telephone: (303) 293-4000
Telex: 454545
Fax: (303) 293-4820
Chief Executive Officer: H. L. Bilhartz, President
International Sales Manager: Charles B. Smith, VP, Marketing & Operations

In 1988, ARCO Coal Company's world wide production was over 32 million tons, 20% of which was sold overseas. ARCO Coal Company is the sixth largest coal company in the U.S.

Product/Service	Description
Coal Mining Coal Export	ARCO Coal Company, a division of Atlantic Richfield Company, is an international coal company with significant operations in several of the world's premium coal basins. In the United States, ARCO's Thunder Basin Coal Company operates the Black Thunder and Coal Creek Mines located in Campbell County, Wyoming. Mountain Coal Operations, a unit of ARCO Coal Company, operates the Trail Mountain No. 9 Mine located in Emery County, Utah and the Mt. Gunnison mine located in Gunnison County, Colorado. Specifications upon request.

Arctic Slope Regional Corporation
6700 Arctic Spur Road
Anchorage, AK 99518



Telephone: (907) 349-5148
Fax: (907) 349-4213
Chief Executive Officer: Jacob Adams, President
International Sales Manager: Kent Grinage, Box 650, Barrow, AK 99723

Arctic Slope Regional Corporation (ASRC) was established pursuant to the Alaskan Native Claims Settlement Act of 1971 (ANCSA 1971) to represent the interests of Natives of Northernmost Alaska. ASRC has become a major force in Alaska. It has design, construction and operation capability with projects located throughout the state and resources to support a broad range of projects. ASRC is now diversified to where it now is comprised of 12 wholly owned subsidiaries with some 1600 employees and with annual revenues exceeding $90 million.

Product/Service	Description
Coal Exporters	Lands selected by ASRC are within the Northern Alaska Coal Province which contains up to four trillion tons of high quality coal. The coal is designated as high volatile A-B Bituminous with a heating value in excess of 12,000 BTU per pound and contains only 0.1 to 0.3 percent sulphur and 5% moisture.
Coal Mining	A demonstration mining program and a thorough complement of studies, have shown development to be technically, environmentally and financially sound. ASRC is presently developing markets and establishing financing to support commercialization of this vast resource. The relatively close proximity of the Pacific Rim nations make a natural choice for market penetration.

Ashland Coal, Inc.
Post Office Box 6300
Huntington, WV 25771

Ashland Coal, Inc.

Telephone: (304) 526-3333
Telex: 710-931-1907
Fax: (304) 526-3678
Chief Executive Officer: William C. Payne
International Sales Manager: Steven F. Leer
Domestic Offices: HUNTINGTON, WV: 2205 Fifth Street Road, Huntington, WV 25701
International Offices: FRANCE: Robert A. Dienhart, 20, Bd. De La Republique, 92210-St. Cloud TEL. 33-14-771-3730, FAX 33-14-771-3793, TELEX 842-25-0041

Ashland Coal, Inc. is an eastern coal company engaged in the marketing, mining, processing and distribution of high Btu, low-Sulfur bituminous coal. The company's operations include underground and surface mines; state-of-the-art processing and rail loading facilities; a truck-to-barge processing and loading facility serving the Ohio River system and the export facility (Dominion Terminal Associates) in Newport News, Virginia, serving export markets and customers on the eastern seaboard of the United States.

Product/Service	Description
Coal Mining, Marketing, Processing, and Exporting	Ashland Coal, Inc. is engaged in the mining, processing and sale of high Btu, low-sulfur steam coal, and markets its coal principally to electric utilities in the eastern United States and into the export markets.

Berwind Coal Sales Co.
Suite 310, Building #4
175 Strafford Avenue
Wayne, PA 19087

DIVISION OF
BERWIND
CORPORATION

Telephone: (215) 688-3915
Fax: (215) 688-7639
Chief Executive Officer: Harry M. Easton, President
International Sales Manager: John C. Culp, Vice President

Berwind has been in the coal business for over 100 years. We are privately owned and currently mine over 1,000,000 tons of coal per year in Somerset County, Pennsylvania, and Pike County, Kentucky, where we own very extensive reserves.

Product/Service	Description
Coal Mining	Various grades of Pennsylvania low volatile (15-17%) coals loaded on Conrail and the B&O Railroads.
	Low sulfur, high volatile (30%+) eastern Kentucky coals loaded on the C&O and N&W Railroads.

BP Coal (USA) Inc.
200 Public Square
Cleveland, OH 44114-2375



BP COAL

BP Coal (USA)

Telephone: (216) 586-4141
Telex: 687-3241
Fax: (216) 586-4394
Chief Executive Officer: E. W. Parke, President
International Sales Manager: W. J. Kotsko, Director of Export and Met. Sales

BP Coal (USA) a coal mining and trading company through Old Ben Coal Company, operates Old Ben Mine 20 located in Mingo County, West Virginia, 55 miles south of Charleston, West Virginia. Current annual capacity is 1.2 million net tons of high volatile and high fluidity metallurgical coal. Three continuous miner sections are employed to extract coal. All production is cleaned in a modern preparation plant at mine site, where 50,000 tons of clean coal can be loaded in 10 days. Transportation from Mine 20 is via Norfolk and Western Railway, a subsidiary of Norfolk Southern Corporation Rail to tide water at Norfolk, Virginia. All of Mine 20 coal is high volatile bituminous "A" coal, coming from the Alma C seam. All the coal is washed and exhibits excellent thermal and metallurgical characteristics.

Product/Service	Description
Coal Mining	Typical Proximate Analysis: Moisture 7.0; Ash 5.8; Sulfur .90; Fixed Carbon 59.6; Volatile Matter 34.6; BTU 14,200; Free swelling index 8.5; Hardgrove index 50.
Coal Export	Plastic Properties: Max fluidity (DDPM) 28,000+; Initial softening temperature 400F; Temperature @ max fluidity 440F; Solidification temperature 480F Temperature range 80F.
	Auditbert-Arnu Dilatometer: % Maximum contraction - 25F; % Maximum dilation 150F; Initial softening temperature 350F; Maximum contraction temperature 400F.
	Ash Fusion Temperatures: Initial deformation: Reducing 2530F; Oxidizing +2700F; Softening (H=W): Reducing 2640F; Oxidizing +2700F; Hemispherical (H=1/2W): Reducing 2690F, Oxidizing +2700F; Fluid: Reducing +2700F; Oxidizing +2700F.

The Bright Coal Group
300 Greenbrier Road
Summersville, WV 26651



Bright Coal Corporation

Telephone: (304) 872-3000
Telex: 467052 BRIGHTAM CI
Fax: (304) 872-3033
Chief Executive Officer: William T. Bright
International Sales Manager: Ronald R. Tanner

The Bright Coal Group is a growth oriented, independently owned and operated bituminous coal mining and marketing company located in Central West Virginia. All coal is produced by independent contract mining companies operating with non-union work forces on Bright properties with The Bright Coal Group retaining exclusive marketing rights thereof. From an initial sales volume of 29,000 tons in 1976, The Bright Coal Group has evolved into a significant business with sales in excess of 2,000,000 tons in 1988. Shipments from The Bright Coal Group that are destined for export markets can originate on the N&W Railroad for transloading at Newport News, the Conrail Railroad for transloading at Baltimore or Philadelphia, the CSXT (B&O) Railroad for transloading at Baltimore, and the Eastern Inland Waterway System for transloading at New Orleans.

Product/Service	Description
Bituminous Coal	Specification Ranges: Moisture: 4-8; Volatile Matter: 26-34%; Ash: 10-18; Fixed Carbon: 48-54; Sulfur: 0.70-1.5; Ash Fusion Temp: 2400°F - 2800°F; BTUs: 11500-13000; Size: Stoker or Crushed Run of Mine.

Buckeye-Industrial Mining Co.
P. O. Box 389
4719 Industrial Road
Lisbon, OH 44432

Telephone: (216) 337-9511 or (216) 424-7281
Fax: (216) 337-3730
Chief Executive Officer: John C. Grisham
International Sales Manager: Jack M. Grinwis
International Offices: Please contact Corporate Headquarters for further information.

Industrial Mining Co. was founded in 1948 and merged with Buckeye Coal Mining Co. (1938) in 1971 to form Buckeye-Industrial Mining Co. Surface and underground mining is conducted in five Northern Ohio counties. A preparation facility and Conrail unit train siding is located in Kensington, Ohio. Multi-seam mining techniques are employed with production in the Ohio No's. 5, 6, 6A, 7, and 7A seam. With multi-seam mining and unique blending capabilities, Buckeye-Industrial Mining Co. produces an inclusive range of utility and industrial coal qualities.

Product/Service	Description
Coal Mining	Coal qualities currently produced range from 1.5% sulphur at 13,000 BTU's to 3% sulphur 12,000 BTU's with both high and low fusion characteristics. Within the reserve portfolio, the company controls a significant amount of less than 1% sulphur 13,000 BTU coal.

Buffalo Coal Company
P.O. Box 282
Bayard, WV 26707

Telephone: (304) 693-7642
Fax: (304) 693-7374
Chief Executive Officer: R. Donald Cussins
International Sales Manager: R. Donald Cussins

Established in 1957, Buffalo Coal Company is a private non-union surface mining operation producing low volatile coals in both Maryland and West Virginia. The company operates two washing plants with 7,000 ton unit train facilities to produce some 1,000,000 US tons annually. General Shipments are approximately 90% domestic utility; 10% export steam quality. Company reserves are in excess of 40,000,000 tons.

Product/Service	Description
Coal Industry General Steam	1 1/4" X 0 PDT; 5-7% Moist; 10-12%
Ash Coal Mining General Steam	17.5-19.5% Volatile; 1.5-2.0% Sulphur 12,000-13,000 BTU; As shipped: 7,000 ton volume units: 2500 F AFT; 90 HGI; C.S.X. Origin

Cannelton Sales Company
315-70th Street
Charleston, WV 25304-2909

Telephone: (304) 925-1222
Telex: 9102404995
Fax: (304) 925-0784
Chief Executive Officer: A. S. Pack, President
International Sales Managers: Richard W. Clonch, Vice President, Sales
Robert L. Potter, Manager, Sales

Cannelton Sales Company is a producer and supplier of low sulfur coal from West Virginia. Through our four mining divisions, Cannelton Industries, Inc. produced over five million tons in 1988. Production in 1989 is projected to reach nearly six million tons. Our production includes low and high quality steam coals and low and high volatile metallurgical coals. Cannelton has the ability of loading unit trains on the C&O and N&W Railroads. In addition, we have a barge loading facility on the Kanawha River that can load up to 1500 tons per hour. Cannelton presently has a total of 350 million tons of recoverable reserves in Kanawha, McDowell, Boone, Fayette, and Raleigh counties. Cannelton has the ability to make volume shipments to either New Orleans, Louisiana, or Newport News, Virginia for vessel loading.

Product/Service	Description
Steam Coal	Kanawha Division: The operation has production capacity of three million tons per year. Btu/lb ranges from 11500 to 12500, percent sulfur ranges from .70 to 1.5, percent ash ranges from 9 to 16. Our barge loading facility is located at Mile Post 84.3 on the Kanawha River in West Virginia and can load over 10,000 tons per day.
High Volatile Metallurgical Coal and Steam Coal	Indian Creek Division: This operation has production capacity of one million tons per year. Our high volatile quality is 7.0% moisture, 6% dry ash, .95% to 1.20% dry sulfur, and a dry volatile of 38%. Our steam coal quality is 12000 to 12500 Btu/lb, less than 1% sulfur and 10% to 12% ash. This operation has the ability to load 100-car unit trains on the CSX Railroad or barges on the Kanawha River.
Low Volatile Metallurgical Coal	Pocahontas Division: This operation has the production capacity of one million tons per year. Our low volatile quality is 7% to 8% moisture, 5% to 95 dry ash, 0.85% to 1% dry sulfur and 18% to 20% dry volatile. This operation is located in McDowell County, West Virginia and is served by the N & S Railroad (Pocahontas District).
Low Volatile Metallurgical Coal	Maple Meadow Mining: This operation has the production capacity of one million tons per year. Our typical quality is 6% to 7% moisture, 6% dry ash, .74% dry sulfur, and 19% dry volatile. This operation is capable of loading 100-car unit trains on the CSX Railroad.

CLI Corporation
430 Park West One
Pittsburgh, PA 15275

CLI CORPORATION
Engineers and Contractors

Telephone: (412) 788-6688
Telex: 510-100-7619
Fax: (412) 788-6690
Chief Executive Officer: David G. Chedgy
International Sales Manager: David G. Chedgy
International Offices: Please contact company headquarters for further information.

CLI Corporation is a major design and construction company in the coal and mineral industry. The Corporation specializes in feasibility studies, definite estimates, engineering and turnkey construction for coal preparation and other mineral processing plants and the associate material handling systems. The Company also produces specialty equipment related to the processing industry. A subsidiary company is also involved in contract operations of mining facilities. The company has internationally recognized coal and mineral processing specialists and a full complement of professional engineers and construction specialists.

Product/Service	Designation	Description
Architecture/Engineering	CLI-1	Conceptual, preliminary and actual design of coal and mineral process plants and material handling system including conveying, crushing, blending and storage.
Coal Mining	CLI-2	Contract operations of mines and processing plants including owner/operator contracts. Major coal processing of contracts of 1200 tph presently under contract.
Facility Construction	CLI-3	Construction of turnkey or negotiated process plants and material handling facilities.
Advanced Utilization	CLI-4	Producer of ultra-low ash and sulfur coal and coal-water-slurries (CWS).

Coal *Extraction and Utilization* Research Center
Southern Illinois University at Carbondale
Carbondale, IL 62901

Coal *extraction and utilization*
Research Center

Telephone: (618) 536-5521
Fax: (618) 453-7346
Chief Executive Officer: John S. Mead
International Sales Manager: David G. Arey
Domestic Offices: CARBONDALE, IL: 315 W. Grand St., Carbondale, IL 62901

The Coal Research Center at Souther Illinois University-Carbondale was established in 1974 to coordinate the coal related research activities of more than 100 faculty and 200 graduate students. Coal research at SIUC has been broad in scope, covering nearly all aspects of coal extraction, preparation, transportation, combustion, pollution control, and reclamation. The Center works closely with the Illinois Department of Energy and Natural Resources' Office of Coal Development and Marketing and its Center for Research on Sulfur in Coal. SIUC operates a unique link-trainer dragline simulator which provides hands-on experience for operators and management personnel. A file of 700 corporations with coal related interests is maintained by the Center.

Product/Service	Description
Dragline Training Program	The Dragline Training Program is a comprehensive and progressive training program designed to increase dragline productivity and reduce operating costs. It provides participants with an efficient and cost effective method of increasing their knowledge about dragline operations and operator skills. Two courses are offered. The supervisor training course is tailored to supervisors, engineers, mine management, experienced dragline crews, and support personnel. The operator training course is primarily for dragline foremen and dragline crew members. Each course simulates the client's specific application of the dragline.
Industrial File	A PC compatible file is maintained by the Center. It lists 700 corporations in the U.S. and overseas which have direct or indirect interest in coal extraction and utilization. A single page profile of coal mining and using industries listing relevant executives and interest areas is available. More detailed information can be provided for specific corporations upon request.
Mining & Reclamation Technical Assistance	The Illinois Mining and Minerals Resources Research Institute and the National Mine Land Reclamation Center -Midwest Regional Center are located at SIUC. Technical reports concerning mining and reclamation are published. SIUC's Cooperative Wildlife Research Laboratory is world leader in technical aspects of mine land reclamation by way of wetland habitat creation.
Laboratory/Testing Services	A G/C Mass Spectrometer Laboratory having a Kratos MS-80 high mass, medium resolution mass spectrometer with fast magnet. There are three ionization sources: electron impact, chemical ionization, and fast atom bombardment. A Coal Testing Laboratory having the capability of performing elemental analysis, total sulfur, proximate analysis, ash fusion temperature, and Btu content. A coal grinding facility consisting of various grinders and crushers and a micronizer capable of grinding to micron size. The micronizer has on-line sampling capability which feed into a Leeds Northrop Microtrak particle size analyzer which can measure particle size down to 0.75 um. A thermo-gravimetric analysis capability centered around Perkin-Elmer TGA-7. A combustion capability centered around two instrumented fluidized bed combustors: one capability of 1,000,000 Btu/hr which can operate in either the bubbling or circulating mode and the other with a capability of about 100,000 Btu/hour.

Coal Rep International
710 Starks Building
Louisville, KY 40202



Telephone: (502) 583-0086
Fax: (502) 587-7021
Chief Executive Officer: H. Jack Rutledge
International Sales Manager: Mary Eileen O'Keefe

Product/Service	Description
Coal Exporters	East Kentucky Coal Mining Operation.
Coal Mining	Export out of Newport News or New Orleans 13,000 BTU, 1% sulfur coal, 15,000,000 tons recoverable reserves. C & O Unit Train and Washplant Facility

---

Coastal Coal Sales, Inc.
P.O. Box 1871
Roanoke, VA 24008

Coastal Coal Sales, Inc.
A SUBSIDIARY OF THE COASTAL CORPORATION

Telephone: (703) 983-0222, (800) 336-5722 (except VA)
Telex: 888415
Fax: (703) 983-0267
Chief Executive Officer: Robert J. Hummel
International Sales Manager: Robert J. Hummel

Coastal Coal Sales, Inc. is responsible for the marketing of over 15 million tons of coal and petroleum coke produced by other units of The Coastal Corporation as well as independent high quality producers. Its principle affiliates are ANR Coal Company, Brooks Run Coal Company, Enterprise Coal Company, Virginia Iron, Coal and Coke Co., Coastal States Energy Co., Southern Utah Fuel Co. and Utah Fuel Co. Coastal Coal Sales also represents Preston Energy Co., an independent producer. Coastal Coal Sales, Inc. is a financially stable company that is an integral part of the Coastal Corporation, an $8 billion, diversified energy company.

Product/Service	Description
Coal Exporters	Exporters of thermal and metallurgical grade coals through the Ports of Hampton Roads, VA, Los Angeles, CA, San Francisco, CA, New Orleans, LA, Mobile, AL, Baltimore, MD and Philadelphia, PA.
Coal Mining	A solid reserve base with major blocks in Kentucky, Utah, Virginia and West Virginia. Flexibility with modern mining facilities and state-of-the-art preparation plants.

Colowyo Coal Company
5731 State Highway #13
Meeker, CO 81641

COLOWYO COAL COMPANY
PEOPLE, PRODUCTION & ENERGY

Telephone: (303) 824-4451
Fax: (303) 824-4451
Chief Executive Officer: E. K. Olson

Colowyo Coal Company is a 50/50 partnership of W. R. Grace & Co. and M. A. Hanna Co. Located in northwest Colorado, Colowyo Coal Company produces over 4 million tons annually of high quality, low sulfur steam coal.

Product/Service	Designation	Description
Steam Coal	2X0	Subbituminous-A coal having 10,700 Btu/lb. (24,867 joules/gm) with .37% sulfur and 4.5% ash (as received).
Stoker Coal	Stoker	Custom-sized coal can be produced, ranging in size from 1.5" to .25" (38mm to 6mm). Stoker coal can be oiled on request. Colowyo stoker coal produces 11,000 Btu/lb. (25,564 joules/gm) with .45% sulfur and 3.5% ash (as received).

Consolidation Coal Company
Consol Plaza
1800 Washington Road
Pittsburgh, PA 15241



Telephone: (412) 831-4382
Telex: 247-634
Fax: (412) 831-4571
Chief Executive Officer: B. R. Brown
International Sales Manager: Walter E. Schrage
Domestic Offices: NORFOLK, VA: 201 Granby Mall, Suite 216, Norfolk, VA 23510 TEL. (804) 627-6261, FAX (804) 625-5088, TELEX 240403 CONSOL NORF; BALTIMORE, MD: Consolidation Coal Sales Company Terminal, 3800 Newgate Avenue, Baltimore, MD 21224 TEL. (301) 631-7000, FAX (301) 631-7022
International Offices: BELGIUM: Godefroid Coal Trading and Shipping S.A., 37-41 Rue du Congress, Brussels 1000 TEL. 011-32-2-218-7220, FAX 32-2-218-6192, TELEX 846-21434

Consolidation Coal Company (Consol) operates 25 underground and surface mines in nine states and Alberta, Canada. The company is the second-largest coal producer in the United States and holds 6.1 billion tons in steam and metallurgical-grade coal reserves. More than 80 percent of Consol's annual production of more than 55 million tons of steam coal for electricity generation. Nearly 11 million tons of high-grade metallurgical coal is produced annually. Consol mines are linked to major rail routes or the inland waterway for shipment to domestic customers and to exporting points on both coasts and the Gulf of Mexico.

Product/Service	Description
Steam Coal	Consol has exported steam coal since the early 1900s. Today consol exports steam coal to eight countries from mines in northern West Virginia, southwestern Pennsylvania and eastern Kentucky. Exporting points are Consolidation Coal Sales Company's (CCSC) terminal in the Port of Baltimore or terminals in Hampton Roads, Virginia and New Orleans, Louisiana.
Metallurgical Coal	Consol exports high-quality metallurgical coals from mines in southwestern Pennsylvania, West Virginia and Virginia. Low and mid-vol coals from southern Appalachian reserves are rail-shipped to Norfolk, Virginia for export, and mid- to high-vol coal through Newport News, Virginia. Pittsburgh Seam high-vol is shipped through CCSC's Baltimore terminal via New Orleans.
Coal Research	Consol maintains the U. S. coal industry's largest and most complete coal research organization and facilities. Located near Pittsburgh, Pennsylvania, Consol Research & Development works to improve coal mining, processing and combustion technologies. Consol R&D's 1.5 million BTU/hr. pilot combustor, the only one of its kind in the world, can simulate a wide range of boiler configurations to help customers make optimum fuel choices.
Transportation	Consol maintains a transportation and distribution group which coordinates coal shipments and quality control. Consol also provides complete terminaling services through CCSC's Baltimore terminal or through contractual arrangements with other exporting facilities. CCSC's terminal is serviced by two major U. S. rail carriers and has on-site ground storage of 12 million tons, which allows extensive coal blending capabilities and eliminates demurrage charges.

Cordero Mining Co.
P.O. Box 1449
Gillette, WY 82717-1449

Telephone: (307) 682-8005
Fax: (307) 686-5507
Chief Executive Officer: Lowell B. Page, President & General Mine Mgr.
International Sales Manager: William L. Schaal, Vice President - Sales
Domestic Offices: LITTLETON, CO: Sun Coal Co., 26 West Dry Creek Circle, Suite 601, Littleton, CO 80120 TEL. (303) 730-1900

Cordero Mining Co. mines and markets sub-bituminous Powder River Basin coal in unit train quantities. The mine is an open pit mining operation currently producing 13,000,000 tons per year.

Product/Service	Description
Sub-Bituminous Coal	Bulk coal at 2 x 0 inch size range loaded in rail cars. Specifications on request.

Cyprus Coal Company
9100 E. Mineral Circle
Englewood, CO 80112

Telephone: (303) 643-5100
Telex: 216190 CMCO UR
Fax: (303) 643-5757
Chief Executive Officer: Donald P. Brown, President
International Sales Manager: V. J. Wicks, III, Vice President, Sales and Marketing Services
Domestic Offices: CLAYMONT, DE: 1504 Society Drive, Claymont, DE 19703 TEL. (302) 798-7611, FAX (302) 798-1278
International Offices: Please contact company headquarters for further information.

Cyprus Coal Company is a subsidiary of Cyprus Minerals Company, a major producer of copper, molybdenum, gold, talc and specialty metals. Originally formed as Amoco Minerals Company in 1969, Cyprus Minerals was spun-off from Amoco in 1985. Since the spin-off, Cyprus Minerals Company has become the second largest U. S. copper producer; fifteenth largest coal producer; the world's largest lithium producer; and, one of the top three molybdenum producers. Cyprus Coal Company has eight mining operations (underground and surface) in six states, with a total annual production of 15MM tons of low and medium sulfur coal and a reserve base of over 1.5 billion tons of steam and metallurgical coal. Cyprus' customers include major industrials, utilities and steel companies domestically and internationally.

Product/Service	Description
Coal Mining	Waynesburg, PA: Steam & met coal: 13,200 Btu/lb, 6% ash, 1.2%-1.8% S, 35% Vol, 8 fsi, 28,000 DDPM Fluidity
Coal Exporters	Craig, CO: Steam coal: 10,500 Btu/lb, 8% ash, 0.3%-0.4% S
	Mt. Carbon, WV: Steam coal: 12,800-13,300 Btu/lb, 9%-10% ash, 0.7%-3.0% S
	Bulan, KY: Steam coal: 12,000-13,000 Btu/lb, 8.5%-12% ash, 0.9%-1.5% S
	Paonia, CO: Steam coal: 11,500 Btu/lb, 7% ash, 0.4% S
	Price, UT: Steam coal: 11,500-12,200 Btu/lb, 6.5%-11% ash, 0.5%-0.75% S
	Hanna, WY: Steam coal: 11,300 Btu/lb, 5% ash, 0.5% S
	Oak Creek, CO: Steam coal: 11,200 Btu/lb, 10% ash, 0.5% S

Electric Fuels Corporation
235 Third Street South
P. O. Box 15208
St. Petersburg, FL 33733



Telephone: (813) 892-2700
Telex: 514168
Fax: (813) 892-2702
Chief Executive Officer: Richard D. Keller, President
International Sales Manager: Ernst A. Upmeyer III, Vice President, Albert W. Pitcher, Vice President

Electric Fuels Corporation (EFC) through its many subsidiaries is involved in coal mining, coal transportation, coal transfer facilities, fuel research in the coal area and the development of coal-based alternative fuels. Electric Fuels has developed a coal management system that has proved to be successful and highly competitive in supplying coal from mine site to the customer. This fully-integrated system is composed of five essential groups: coal, operations, marine and terminaling, alternative fuels and international marketing. The integration of these groups under Electric Fuels' management provides the necessary exposure to all phases of the coal industry.

Product/Service	Description
Advanced Utilization	With access to experts in virtually every application of coal combustion, Electric Fuels can provide qualified technical know-how in the areas of ash utilization, mineral and metal recovery from ash and in ash disposal. From start to finish, Electric Fuels' customers are assured of experienced assistance with all their coal handling needs. EFC has developed services ranging from field and laboratory functions to advanced computer support.
Coal Derivatives	Electric Fuels' involvement in the development of alternative fuels is through COMCO, a leader in the manufacture of coal-oil mixture (COM), coal-water mixture (CWM) and petroleum coke-oil mixture (PETCOM). Coal-liquid mixtures are produced at COMCO's Port Sutton, Florida facility. REDICOAL, COMCO's new powdered coal product for industrial and utility use, has proved to be an economical replacement for fuel oil and natural gas.
Coal Mining	The coal group is responsible for the mining and preparation of coal from sites containing approximately 215 million tons of reserves located in the states of Virginia, West Virginia and Kentucky. Origin points have capability to load both trucks and unit trains.
Coal Transport	Marine Equipment Management Corporation, a wholly-owned subsidiary, handles coal from all inland river origins in either single barge or unit tow lots. Standby loading is available. Covered barges are available. MEMCO also offers switching and fleeting services at various Mississippi River ports. Dixie Fuels Limited offers handling, storing, terminaling and transporting bulk cargo by sea-going marine transportation equipment.
Facility Operations	International Marine Terminals is a bulk materials handling facility strategically located near the mouth of the Mississippi River. The recently expanded terminal consists of modern facilities, ground storage/blending and a coal testing laboratory operated by an independent agent. Hatfield Terminals operates transfer facilities in Cincinnati, Ohio, on the Ohio River and near Charleston, West Virginia, on the Kanawha River. Kentucky May Coal operates a coal transfer facility on the Big Sandy River.

Farrell-Cooper Mining Company
P.O. Box 1947
6001 South Zero
Fort Smith, AR 72902

FARRELL-COOPER MINING COMPANY
Mining Construction

Telephone: (501) 646-4366
Fax: (501) 646-3220
Chief Executive Officer: William J. Cooper
International Sales Manager: William J. Cooper
International Offices: Please contact company headquarters for further information.

Farrell-Cooper Mining Company is in the business of mining, transporting and exporting bituminous coal and cannel coal for industrial fuel and domestic home heating fuel. We operate coal loading facilities on the Arkansas River (1,500 ton barges), but mainly at the Port of Corpus Christi, Texas. At Corpus Christi, we handle product for export as well as product being imported.

Product/Service	Description
Coal Exporters	Export facility is located adjacent to Port of Corpus Christi. The port's depth is 45 feet and is the deepest port on the Gulf of Mexico.
Coal Mining	Operates two surface mines in the State of Oklahoma on Low Volatile and High Volatile Bituminous Coal. Operates two surface mines in the State of Texas on a High Volatile, Low Ash Cannel Coal under the name of Farco Mining of Texas, Inc. All coal mines are equipped with coal washing facilities.
Coal Transport	All of our mines are equipped with railroad tipples in addition to major highway access.

H. B. Zachry Company
P.O. Box 21130
San Antonio, TX 78221-0130

ZACHRY

Telephone: (512) 922-1213
Telex: 76-7426
Fax: (512) 927-8060
Chief Executive Officer: H. B. Zachry
International Sales Manager: Robert E. Hood
International Offices: Please contact company headquarters for further information.

H. B. Zachry Company is a world leader in the construction industry with over sixty-five years of building a wide variety of construction projects. Including power, process, transportation, mining/minerals (lignite, fluorspar and "frac sand"), hydraulics/water works, general industrial/manufacturing, commercial, maintenance, and pipeline. Projects have been constructed in Alaska, Bangladesh, Canada, Chile, Greece, Kwajalien, Oman, Peru, Puerto Rico, Saudi Arabia, Sinai Desert, South Africa, Spain, and Thailand. By accommodating the owner's preference of design firms the Company has good relations with many engineering firms. The company also functions as consortium manager to provide complete design, construction, financing, and maintenance responsibilities.

Product/Service	Description
Contract Mining	Topsoil requirements, hydrologic balance, disposal of excess soil, coal or mineral recovery, mineral processing waste banks, environmental protection, pipelines, backfilling & grading, revegetation, Class I-III roads, special conditions.
Facility Construction	Loading facilities, storage and stockpile facilities, sheds, shops and other buildings, water treatment and water storage facilities, settling basins and impoundments, coal processing and other waste disposal areas, roads, railroads and other transport facilities.
Facility Operations & Maintenance	Operations plan, air pollution control plan, fish & wildlife plan, reclamation plan, diversions, protection of public parks & historic places, use of public roads.

Imperial-Pacific Investments, Incorporated
405 Capitol Street, Suite 607
Charleston, WV 25301

IMPERIAL·PACIFIC INVESTMENTS INCORPORATED

Telephone: (304) 343-6550
Fax: (304) 343-9849
Chief Executive Officer: Robert C. Gibson
International Sales Manager: William F. Davison

Imperial-Pacific Investments, Inc. is a privately held company incorporated in the state of West Virginia. Wholly owned subsidiaries of IPI are Winchester Coals, Inc., Princess Susan Coal Co., and Hawks Nest Mining Co. IPI is a full service coal mining and shipping company delivering steam and metallurgical coal to domestic and international customers. IPI is able to originate shipments via rail or water.

Product/Service

Coal Exporters

Coal Mining

Coal Transport

Ingram Coal Company
4400 Harding Road
Nashville, TN 37205

INGRAM

Telephone: (615) 298-8300
Telex: 555130
Fax: (615) 298-8350
Chief Executive Officer: Frank M. Michitti
International Sales Manager: W. Alexander Steele, III
Domestic Offices: RICHMOND, VA: 9601 Gayton Road, Richmond, VA 23233 TEL. (804) 741-6093; PIKEVILLE, KY: Johns Creek Coal Company, Meta, KY 41501 TEL. (606) 631-1000
International Offices: SCOTLAND: Delta Sales & Marketing Inc., 1 Blythswood Square, Glasgow G2-4AD, FAX 698-740883

Ingram Coal Company sales personnel have extensive knowledge of domestic and overseas markets and are active in them daily. Steam, stoker and other specialty coals are produced, prepared and shipped through its Johns Creek Division.

Product/Service	Description
Coal Mining	Through its Johns Creek Division the Company owns and operates a 600,000 ton per year facility near Pikeville, Kentucky.
Coal Exporter	The Company regularly trades in steam and metallurgical coals to Europe and Asia.

Island Creek Corporation
250 West Main Street
Lexington, KY 40575



Telephone: (606) 288-3000
Telex: 21 8414 ICCS LEX
Fax: (606) 288-3780
Chief Executive Officer: S. O. Ogden
International Sales Manager: P. H. Vining

Island Creek Corporation is a wholly owned subsidiary of Occidental Petroleum Corporation, which has operations in exploration of oil and natural gas, natural gas transmission, chemical, agribusiness and coal. Occidental, a Fortune 100 company, has revenues in excess of $19 billion annually. Island Creek is a producer of high quality metallurgical and steam coal for both the export and domestic market. Total sales and production during 1988 were 21.9 million tons while 1989 is expected to reach 23 million. This makes Island Creek among the 15 largest coal exporters. Island Creek has mining operations located in Kentucky, West Virginia and Virginia. Total recoverable reserves are approximately 2.8 billion tons of which 1.5 billion contain a sulfur content of one percent or less. In addition to coal production, Island Creek has interests in coal handling and transportation through subsidiaries: Kentucky Ohio Transportation Company and Curtis Bay Company.

Product/Service	Designation	Description
Metallurgical Coal	High Volatile	Ash 6.0%, Sulfur .85%, Volatile 34%
	Medium Volatile	Ash 4.5%, Sulfur .50%, Volatile 18.5%
	Low Volatile	Ash 5.5%, Sulfur .90%, Volatile 18.5%
Steam Coal	Compliance Sulfur	Moisture 6.5%, Ash 8-12%, Sulfur .75%, BTU/lb 12,500-13,000
	1% Sulfur	Moisture 6.5%, Ash 8-12%, Sulfur 1%, BTU/lb 12,500-13,000
	1.5% Sulfur	Moisture 7.0%, Ash 10-12%, Sulfur 1.5%, BTU/lb 12,800
	+2.5% Sulfur	Moisture 10%, Ash 7%, Sulfur 2.5%, BTU/lb 11,900
Terminal Services	Kentucky Ohio Transportation Co.	Transfer terminal from rail to barge located on the Ohio River in Wheelersburg, OH, and South Shore, KY.
	Curtis Bay Company	Located in Baltimore, MD, this terminal transfers coal form rail to ground storage for loading to vessel or barge for domestic or export movement.

Jim Walter Resources, Inc.
P. O. Box 830079
Birmingham, AL 35283-0079



Telephone: (205) 254-7481, 556-6000
Telex: 261391 JWRB UR
Fax: (205) 556-5857
Chief Executive Officer: William Carr, President
International Sales Manager: K. H. Frazer, Vice President
R. W. Pollard, Sales Manager
Domestic Offices: BROOKWOOD, AL: Route 1, Box 133 - Highway 216, Brookwood, AL 35444
International Offices: Please contact company headquarters for further information.

Jim Walter Resources, Inc., is a 10 million (net) ton per year producer of high quality metallurgical (low and medium volatile) coal from the Blue Creek seam. The coal is produced from 4 underground mines in north central Alabama. These mines are served by both barge and railroad and approximately 6 million tons per year are exported from McDuffie Terminals in Mobile, Alabama. With more than 350 million tons of recoverable reserves, Jim Walter Resources will be producing high quality, single seam metallurgical coal for many years to come. Customers worldwide depend on Blue Creek coals, and Jim Walter Resources has ample reserves to back up long-term commitments.

Product/Service	Description
Low Volatile Metallurgical Coal (No. 3 and No. 7 Mines)	Volatile matter 18-22%, ash 8%, sulfur .6-.7% (all dry basis), moisture 8% typical, HGI +90, ARNU 75-120, fluidity 300-700 DDPM, FSI 9, size 50 mm x 0 (other specifications upon request).
Medium Volatile Metallurgical Coal (No. 4 and No. 5 Mines)	Volatile matter 24-26%, ash 8.8%, sulfur .7-.8% (all dry basis), moisture 8% typical, HGI +90, ARNU 120-140, fluidity 2000-4000 DDPM, FSI 9, size 50 mm x 0 (other specifications upon request).
Dry, Granular Coal	Medium volatile coal produced at No. 4 Mine is thermally dried. Annually, approximately 250,000 (net) tons of "dryer dust" is captured in the dryer's emissions control system. This coal is sized at 2 mm x 0 and is less than 2% moisture. This would be an excellent product for granular coal injection at a blast furnace.
Coal Water Fuel	Also located at No. 4 Mine, Jim Walter Resources has a pilot scale CWF plant capable of producing 10 tons (50 barrels, 42 gallons each) of CWF per hour. However, with no continuous production commitments, the plant is available to produce batch samples of CWF produced from Blue Creek coal or customized CWF's with customer provided coals. Jim Walter Resources can also custom design and produce CWF to meet any special requirements.

Kerr-McGee Coal Corporation
P. O. Box 25861
Oklahoma City, OK 73125



Telephone: (405) 270-2551
Telex: 747-128
Fax: (405) 270-3123
Chief Executive Officer: Peter B. Lilly, President
International Sales Manager: M. Toby Muller, Vice President - Marketing

Kerr-McGee Corporation is a diversified energy and chemicals company. The Coal Corporation, a wholly-owned subsidiary of Kerr-McGee Corporation, produced 17.3 million tons in 1988. The company mines and markets steam and metallurgical coal from mines in the western and midwestern U.S. The company also owns substantial underdeveloped coal reserves in Illinois, Oklahoma and West Virginia.

Product/Service	Description
Coal Mining	The company mines and markets 8,600-Btu, low-sulfur coal from its Jacobs Ranch Mine in the South Powder River Basin, and 12,000-Btu, 1.3% sulfur coal from its Galatia Mine in southern Illinois.
Coal Exporter	Kerr-McGee coal is exported to steam and metallurgical markets via West and Gulf Coast ports.

MINGO LOGAN COAL COMPANY

Mingo Logan Coal Company
HC 71 Box 185B
Wharncliffe, WV 25651

Telephone: (304) 664-3873
Fax: (304) 664-8930
Chief Executive Officer: John M. Slater, President
International Sales Manager: Andrew W. Cox, Vice President Sales
Domestic Offices: CLEVELAND, OH: 200 Public Square 5-2806-C, Cleveland, OH 44114; LEXINGTON, KY: 333 West Vine Street, RM600, Lexington KY TEL. (606) 253-3300, FAX (606) 252-4280

Mingo Logan Coal Company, located in Mingo & Logan counties, West Virginia is owned by BP America and forms part of BP Coal, an international coal mining and trading company. Production which began in 1988, is planned to increase from its current two million ton per annum to over four million tons per annum in the early 1990's. The mine is served by the Norfolk and Western Railway, a subsidiary of Norfolk Southern Corporation. Rail distance to tide water at Norfolk, Virginia is 414 miles. BP Coal marketing, located in London, offers a wide range of marketing services.

Product/Service **Description**

All of the coal in Mingo Logan Reserve is high volatile bituminous "A" coal. The coal mined comes from five main seams, the upper and lower Cedar Groves, the Alma A and Alma C and the Hernshaw. Each of these seams exhibits excellent thermal and metallurgical characteristics. All the coal shipped will be of "Compliance" quality, i.e., it will produce less than 1.2 pounds of sulfur dioxide (SO_2) per million BTU's when burned.

Steam Coal

Proximate Analysis (As received basis)			
Moisture	5.5%	BTU/LB	12,700
Ash	10.0%	Sulfur	0.72%
Volatile matter	32.0%	Fixed Carbon	52.5%

Ash Fusion Temperature		
Initial	+2500 F	+2600 F
Softening	+2550 F	+2658 F
Hemopherical	+2600 F	+2780 F
Fluiding	+2650 F	+2700 F

Metallurgical Coal

Proximate Analysis (dry basis)			
Ash	6.0%	BTU/LB	14,380
Volatile Matter	34.6%	Sulfur	0.70%
Fixed Carbon	59.4%	Moisture	7.5%

Hargrove index	51
Free swelling index	7.5
Maximum Fluidity (ddpm)	+25,000

Mobil Coal Producing Inc.
Box 17772
Denver, CO 80217



Telephone: (303) 298-2960
Telex: 910-9312633
Fax: (303) 298-2974
General Manager & VP: R. G. (George) McGinn
Vice President--Marketing: J. R. (Bob) Anderson
International Offices: INDONESIA: M. R. (Mike) Wolfhard, Mobil Oil Indonesia Inc., Post Bag 400, Jakarta 10002, Ratu Plaza 27th Floor TEL. 61-21-711211, TELEX 47431 MOI/JKT, FAX 61-21-7202068

Mobil Coal Producing Inc., an established coal producer and marketer, commenced production at its Caballo Rojo Mine in Wyoming's Powder River Basin in 1982. The Mine has a current capacity of over eight million tons per year with the potential to increase its permitted target of 20 million tpy. Coal from Caballo Rojo was successfully shipped to Taiwan Power Company in 1988 through the Roberts Bank terminal in British Columbia. Mobil Coal Producing Inc. is also developing a resource in Indonesia with Nissho Iwai as joint venture partner in its P. T. Berau project. Production is planned from the Berau Mine in early 1991 to supply both the Indonesian and Pacific Rim marketplaces.

Product/Service	Description
Coal Exporters	U. S. production from the Caballo Rojo Mine is low ash, low sulfur with a heating value of 8500 BTU/lb. Deliveries can be made on either the BN or the C&NW/UP railroads. Transshipment via the Roberts Bank Terminal is proven.
Coal Mining	Low ash, low sulfur, good quality coal from Kalimantan, Indonesia is planned for early 1991 shipment.
Coal Transport	Mobil can assist end users with their transportation requirements.
Technical Services	Mobil utilized state-of-the-art computer modeling and retains highly qualified combustion experts to provide domestic and international customers technical coal utilization assistance.

National Mines Corporation
P.O. Box 12022
333 W. Vine Street, Suite 1000
Lexington, KY 40579



Telephone: (606) 233-4141
Telex: 213475
Fax: (606) 281-8757
Chief Executive Officer: Vaughn R. Knapp, President
International Sales Manager: Herman L. Mays, Vice President, Marketing and Sales

A subsidiary of National Steel Corporation, the company began coal production in the early 50's as an integrated source for cokemaking. Today, 80% of shipments are to commercial domestic and export receivers, offering various high-quality grades of metallurgical, sized (industrial), and thermal coals. Mines and preparation facilities are located in Washington Co., PA, Wyoming Co., WV, and Knott Co., KY, with site capacities of from 500,000 to 1.6 million tons per year. Unit-train loading capability at PA and KY locations. Coals are deep-mined and tend to be low-to-mid sulfur content. UMWA-affiliated and professionally staffed.

Product/Service	Description
Coal Exporters	Knowledge of international marketplace-mainland Europe, Scandinavia, Pacific Rim, Canada, South America-port facilities, transportation, storage, handling.
Coal Mining	Full range of experience, including exploration, development, all aspects of mine and plant operation, reclamation, safety.
Facility Operation	Capable of previously enumerated aspects of management and engineering.

NERCO Coal Corporation
2043 Woodland Parkway
Suite 300
St. Louis, MO 63146



Telephone: (314) 872-2477
Telex: 403180, NERCO STL
Fax: (314) 993-8391
Chief Executive Officer: Charles C. Adams, President
International Sales Manager: Patrick J. Panzarino, Vice President (International Sales)

NERCO Coal Corp. is the coal mining and development subsidiary of NERCO, Inc., a New York Stock Exchange traded, Fortune 500 company. The company is one of the largest coal producers in the United States and has coal reserves and mining operations in both the western and eastern parts of the country. In 1988 NERCO Coal Corp. sold more than 31 million tons of coal, of which 24 million was from its own mines. The company is actively engaged in the export market.

Product/Service	Description
Coal Mining Exporting, and Transportation	Powder River Basin, Midwestern, and Eastern United States coals for export.

Oglebay Norton Company
1100 Superior Ave.
Cleveland, OH 44114

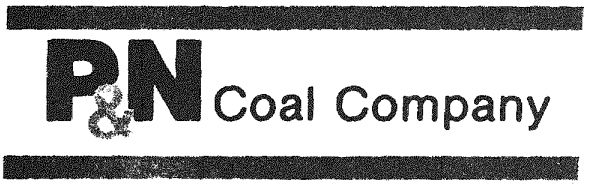


Telephone: (216) 861-3300, (216) 861-8707
Telex: 62836077 ONCO-CLEVE
Fax: 216-861-2863
Chief Executive Officer: Renold D. Thompson
International Sales Manager: J. Douglas Loughead

Minerals, lake transportation and manufacturing are the major areas in which Oglebay Norton serves steelmakers, utilities, chemical and glass producers, manufacturers and other basic industries. Produces Ohio No. 8 Seam Coal (Steam) with daily production capabilities of 4000NT. Deep Mine located on NS Railroad at St. Clairesville, Ohio. Twelve thousand contiguous acres of coal reserves located in Boone County, WV. Five seams with average quality being 12,500 BTU's and 1% sulfur. Production is scheduled for fourth quarter 1989.

Product/Service	Designation	Description
Coal Mining	Ceredo Dock	Barge loading facility located near Huntington, WV on the Ohio River. Jointly served by CSX and NS railways (unit train capable) with annual capacity of 8,000,000 tons.
Coal Transport Facilities Construction	Licking River Terminal Co.	Barge loading facility located near Cincinnati, OH. Unit train capable and served by the CSX railway. Annual capacity of 8,000,000 tons.
Facilities Operation	Columbia Transportation Division	Offers a full range of 13 lake carriers to handle bulk materials on the Great Lakes.

P&N Coal Company
240 West Mahoning Street
Punxsutawney, PA 15767



Telephone: (814) 938-7660
Fax: (814) 938-5633
Chief Executive Officer: George D. Prushnok
International Sales Manager: Donald Hudson

P&N Coal Company is a substantial supplier of steam coal to the industrial, utility, and export markets. Because of our strong position in the West-Central Pennsylvania Coal Fields, we are in a position to supply coals covering a full range of quality specifications. We are an independent Pennsylvania producer with a long and enviable reputation as a reliable source of quality steam coal.

Product/Service	Description
Coal Mining	Bituminous coal production in Indiana, Jefferson, Clearfield, and Elk Counties of Pennsylvania.

Pacific Coast Coal Co., Inc.
30700 Black Diamond-Ravensdale Rd.
P.O. Box 450
Black Diamond, WA 98010



Telephone: (206) 432-5642
Fax: (206) 432-2645
Chief Executive Officer: David J. Morris
International Sales Manager: David J. Morris
International Offices: Please contact company headquarters for further information.

Pacific Coast is one of two coal operators located in Washington state and the only one producing export quality bituminous coal. The open pit John Henry mine began producing in 1987 and is located just 310 km south of Roberts Bank terminal on the Burlington Northern RR. This favorable location results in an extremely competitive transportation cost for steam coal delivered into the Pacific Rim countries. Coal reserves are large enough to allow for mine expansion as markets grow.

Product/Service	Description
Steam Coal	Washed or raw steam coal ranging form 6,200-7,000 kcal/kg (air dried); 10-22 percent ash; 6-10 percent moisture (2 percent inherent); 27-25 percent V.M.; less than 1 percent V.M.; less than 1 percent sulfur; high ash fusion. Available in 10-30,000 tonne lots subject to prior commitments.

Pyro Mining Company
653 South Hebron Avenue
Evansville, IN 47715



Telephone: (812) 473-8600
Telex: 278412
Fax: (812) 473-8623
Chief Executive Officer: Ron P. Siler
International Sales Manager: Dan P. Shelledy

Pyro Mining Company is a major producer of medium to high sulfur coal in the Illinois Coal Basin (USA). The production capacity of our deep mines in Western Kentucky is over 7.0 million tons per year. Pyro has the ability to blend the Western Kentucky coal with low sulfur coals from affiliated companies in West Virginia, Kentucky and Alabama. Low cost barge transportation on the inland waterways system provides access to deep water ports at New Orleans, Louisiana and Mobile, Alabama for shipments to overseas markets.

Product/Service	Description
Steam Coal	#9 Seam Washed Coal Specifications: 7000 Kcal, 2.9% Sulfur, 7.0% Moisture, 9.0% Ash, 35% Volatile, Grindability 58, AST 1150 Deg. C; Cargo Size: Up to 135,000 MT #9 Seam Raw Coal Specifications: 6600 Kcal, 4.3% Sulfur, 7.0% Moisture, 15% Ash, 34% Volatile, Grindability 58, AST 1100 Deg. C; Cargo Size: Up to 135,000 MT #13 Seam Washed Coal Specifications: 7000 Kcal, 1.9% Sulfur, 7.0% Moisture, 8.5% Ash, 35% Volatile, Grindability 58, AST 1300 Deg. C; Cargo Size: Up to 65,000 MT Low Sulfur Blend Coal Specifications: 6600 Kcal, 0.9% Sulfur, 7.0% Moisture, 15% Ash, 34% Volatile, Grindability 45, AST 1500 Deg. C; used as a blend coal to reduce sulfur or increase average Ash Soltering Temperature.

REICHdrill
P.O. Box 361
Philipsburg, PA 16866



Telephone: (814) 342-5500
Telex: 857223
Fax: (814) 342-1135
International Sales Manager: Robert F. Valli, President
Thomas O'Byrne, Vice President of Sales & Marketing

REICHdrill, Inc. has over 40 years experience in sales, service and manufacturing of quality drilling equipment, serving the mining industry.

Product/Service	Description
Mining Equipment	REICHdrill manufactures truck and crawler mounted blasthole rigs with pulldown pressures ranging from 18,000 lbs. to 80,000 lbs. REICHdrill has developed the S.A.M. (Sliding Angle Mast) as an option on selected drill models for the specialized exploration drilling market. This unique feature positions the mast assembly at angles up to 45°, then slides the mast down to contact the ground for precise stabilization and control. The manufacturing, sales and administrative offices are headquartered in Philipsburg, Pennsylvania.

Stone & Webster Engineering Corporation
245 Summer Street
Boston, MA 02210



Telephone: (617) 589-5111
Telex: W.U. 94-0001
Fax: (617) 589-2156, (617) 589-8071
Chief Executive Officer: Frank W. Ries, Chairman
International Sales Manager: Raymond F. Rugg, Director of Marketing
Domestic Offices: CHERRY HILL, NJ; CHICAGO, IL; DENVER, CO; FORT LAUDERDALE, FL; HOUSTON, TX; NEW YORK, NY; SAN FRANCISCO, CA
International Offices: UNITED KINGDOM: Milton Keynes; CANADA: Toronto; Stone & Webster also maintains offices in the following cities: Paris, Abu Dhabi, Dammam, Riyadh, Kuala Lumpur and Seoul. Please contact headquarters in Boston for further information.

Stone & Webster Engineering Corporation, which is celebrating its Centennial during 1989, is one of the world's largest engineering and construction firms. Since its founding, as a two-man consultancy in Boston, the firm has planned, engineered and provided construction and construction-management services for utilities and industrial power concerns worldwide. Having designed and/or built plants with a total capacity exceeding 50 million kilowatts, the company is considered one of the world's largest and most experienced engineer-constructors of coal power facilities. Over the years, Stone & Webster has helped many domestic and international clients develop technologies that can lead to cleaner and more efficient use of coal. For instance, in the United States the company has conceptually designed integrated gasification/combined-cycle systems for new generating stations and evaluated the use of coal liquids for existing oil-fired stations. Stone & Webster also worked on the first utility coal-gasification project in Brazil. Today, we continue to work with government agencies and private firms on new ways to clean and burn fossil fuels. Our development projects include a process that will convert a mixture of high-sulfur coal and residual crude oil into clean-burning fuel, as well as a retrofit combustor system that eliminates a variety of pollutants and a furnace injection system that removes sulfur dioxide. Listed below, are some of the areas in which Stone & Webster applies its consulting, engineering and construction expertise.

Product/Service	Description
Advanced Utilization	Coal processing systems; direct and indirect liquefaction; coal gasification combined cycle power systems; advanced power generation systems; pressurized fluidized bed technology; externally fired high temperature gas turbine combined cycle systems and direct fired dual working fluid power cycles.
Coal Industry	Coal drying technologies; surface and underground coal mining; coal handling; fuel analysis.
Coal Mining	Correlation and preliminary evaluation of data; mine planning and engineering design (surface and underground): pit planning and design; underground planning and design, production engineering, land reclamation. Drilling; blasting engineering and optimization; equipment selection and justification; budget review; reserve analysis; haulroad design; coal evacuation and loading design; auxiliary utility design: compressor systems, water piping systems; ventilation design; slop stability engineering; economic analysis; fatal flaw analysis; geological aspects: exploration methods and requirements, preliminary evaluations.
Coal Transport	Railroad construction, design and engineering; truck-shovel optimization; coal slurry technology.
Facility Construction	Silo design and engineering; conveyor systems; coal loadout facilities; crushing operations and design.

Sun Coal Company
4711 Old Kingston Pike
P.O. Box 10388
Knoxville, TN 37939-0388



Telephone: (615) 558-0300
Telex: 55-7045
Fax: (615) 558-3280
Chief Executive Officer: Richard W. Ince
International Sales Manager: David H. Everest, Jr.
Domestic Offices: CHARLOTTE, NC: 5835 Executive Center Drive, Suite 105, Charlotte, NC 28212 TEL. (704) 568-2970; LITTLETON, CO: 26 West Dry Creek Circle, Suite 106, Littleton, CO 80120 TEL. (303) 730-1900; PITTSBURGH, PA: 720 Two Gateway Center, Pittsburgh, PA 15222 TEL. (412) 281-4728

Sun Coal Company is one of the largest coal companies in the U. S. with mining operations in Kentucky, Utah, Virginia, West Virginia and Wyoming. The seven different mining operations produce low sulfur coals for the steam and metallurgical markets and are strategically located to supply high quality products to virtually every North American port. Sun also owns and operates a "non-recovery" coke plant of unique design in Virginia and sells high quality furnace coke to the steel industry. Sun Coal Company is a wholly-owned subsidiary of Sun Company, Inc., a major U. S. oil company.

Product/Service	Description
Coal Mining	Sun Coal is a major coal mining company supplying high quality steam coals for the electric utility industry and mid and high volatile coking coals to the steel and ferro-alloy industries. Sun Coal also makes high quality furnace coke with its patented "non-recovery" coke oven technology utilizing its mid volatile coking coal exclusively.
Coal Exporters	
Coal Derivatives	

Total American Mining, Inc.
333 Clay Street, Suite 4800
Houston, TX 77002



Telephone: (713) 655-7900
Telex: 216195
Fax: (713) 650-8184
Chief Executive Officer: James J. Graham
International Sales Manager: Kenneth L. Brockway, Marketing Manager
Domestic Offices: GILLETTE, WY: P. O. Box 2737, Gillette, WY 82716 TEL. (307) 682-7999
International Offices: FRANCE: Francois Fiatte, Total Mines Nucleaire, Direction Charbon, Tour Mirabeau, 39-43 Quai Andre' Citroen, 75739 Paris, Cedex 15 TEL. 33-1-45-78-33-33, FAX 33-1-45-78-36 24; HONG KONG: Claude Bouilly, Total Energy Services (Hong Kong) Ltd., Room 2110, Hutchison House, 10 Harcourt Road TEL. 85-2-5-22019, FAX 85-2- 5-8452093

Total American Mining, Inc. is a corporate affiliate of Total Compagnie Francaise Des Petroles, the major French energy group. Total's diversification into mining began in 1975 and now includes coal, uranium and precious metals activity worldwide. Coal is produced in Australia, South Africa and in the United States at Fort Union Coal Company. General Management of coal marketing, trading and shipping is provided by Total Mines Nucleaire. Total Energy Services (Hong Kong) Ltd. was established in 1986 to facilitate business development in the Far East. Total Group is the major shareholder and holds the chairmanship of the Cipha Terminal in Le Havre, France.

Product/Service	Description
Coal Exporters	Fort Union Coal Company is located in Campbell County near Gillette, Wyoming. The surface mine has a reserve base of 200 million Coal Mining tons and a permitted annual capacity of 8.2 million tons. Unit train rail service is provided by Burlington Northern (Union Junction). Typical as-received specifications: 8,200 BTU, 5% Ash, 31% Moisture, 0.4% Sulfur.
Coal Mining	
Coal Transport	

United Coal Company
Glenway Avenue
P. O. Box 1280
Bristol, VA 24203

Telephone: (703) 466-3322
Telex: 510-580-2108
Fax: (703) 466-5641
Chief Executive Officer: Charles T. Carter
International Sales Manager: Ralph D. Haring
International Offices: Please contact company headquarters for further information.

United Coal Company began operations in 1970 with production of 415,000 tons of coal. By 1988 annual production and sales exceeded 11 million tons. United produces a variety of high quality steam and metallurgical coals from its over 1 billion tons of controlled reserves. United exports both steam and metallurgical coal through the major East Coast and Gulf ports. United Coal Company operates both surface and underground mines in Kentucky, Virginia and West Virginia.

Product/Service	Description
Coal Exports	Steam and Metallurgical coal is exported through East Coast ports via the CSX and Norfolk Southern railways. United maintains good commercial relationships with ground storage terminal operations in Newport News, Virginia and the lower Mississippi.
Coal Mining	United's five coal producing divisions operate independently with their own engineering, preparation and loading facilities, quality control laboratories and repair shops.

Westmoreland Coal Company
700 The Bellevue
200 South Broad Street
Philadelphia, PA 19102

Telephone: (215) 545-2500
Telex: (215) 670-4210
Fax: (215) 735-7175
Chief Executive Officer: Pemberton Hutchinson, President
International Sales President: John V. Bickford
Russell J. Stewart, Vice President
Domestic Offices: CHARLOTTE, NC: 5700 Executive Center Drive, Suite 109, Charlotte, NC 28212; NEWPORT NEWS, VA: Export Shipping Office, 96-24th Street, P.O. Box 536, Newport News, VA 23607

Westmoreland Coal Company, America's oldest independent coal company, is a producer and marketer of low sulfur coal mined primarily from the Central Appalachian region with reserves totalling nearly one billion tons. Westmoreland Coal Sales Company, a wholly-owned marketing and sales subsidiary, excels in export and domestic sales of high quality metallurgical and steam coals from Company mines and other producers. Westmoreland provides its customers with expert transportation management, transhipping internationally through the Gulf of Mexico and Dominion Terminal, in Newport News, VA, another company subsidiary. In addition, the Company also exports coal through non-affiliated piers. Quality assurance is also provided by the Company's own coal research laboratory, Gallagher Coal Research Center.

Product/Service	Description
Hampton/Ferrell Coal	High Grade Metallurgical and Steam: Premium high volatile coals with excellent coking characteristics for efficient metallurgical coke production. High quality steam coal used domestically and internationally.
Winding Gulf/Bonny	Premium Metallurgical: Premium low volatile, low ash coal with excellent coking characteristics for efficient metallurgical coke production.
Quinwood	Premium Grade, Medium Volatile: A very low ash, low sulfur medium volatile coal used for coke making. Its low ash allows this coal to be used as a reductant by the ferro-alloy industry. Also used for industrial applications.
Wentz	High Grade, Metallurgical and Steam: A versatile, premium quality, low sulfur coal used in coke-making for its low ash and fluidity, or for steam purposes due to high heat and sulfur properties or it can be sized for stoker applications.

(Continued on next page)

Westmoreland Coal Company (Continued)

Transloader	Premium Steam: High quality, low sulfur steam coal sold to utilities. The Transloader is capable of storing 84 thousand tons of clean or ROM coal from Company mines with nuclear analyzing, blending and unit train loading ability.
Kentucky Criterion	Premium Steam: High quality, low sulfur steam coal for industrial and utility steam applications.
Dominion Terminal Associates	Export shiploading facility: This terminal provides ground storage and product blending, inbound and outbound weighing and sampling capabilities and rapid vessel loading equipment.
Cleancoal Terminal	Rail to river barge transloading facility: River terminal and ground storage facility used to blend and load coal for inland movement to export terminals located in the Gulf of Mexico.
Gallagher Coal Research Center	Coal quality and testing services: Lab provides variety of analytical tests for both met and steam coal customers including petrography, fluidity, and Btu, volatile matter, ash and sulfur determinations.

Zeigler Coal Company
331 Salem Place, Suite 200
Fairview Heights, IL 62208

Zeigler Coal Company

Telephone: (618) 624-3600
Fax: (618) 624-3669
Chief Executive Officer: Michael K. Reilly
International Sales Manager: J. Richard Freeman

Founded in 1904, Zeigler Coal Company operates three underground coal mines in the State of Illinois. With a total employment of 625, Zeigler's mines have an annual production of three million tons. Formerly owned by Houston Natural Gas, Zeigler is a privately held company. Staff support, including sales and distribution coordination is provided in the Corporate Headquarters located in Fairview Heights, Illinois.

In addition to marketing coal mined by Zeigler, the Zeigler Coal Sales Company is organized to manage the marketing efforts for other coal producers. Zeigler employs the continuous mining method at all its mines. A member of the Bituminous Coal Operators' Association, Zeigler's workforce is represented by the United Mine Workers of America.

Product/Service	Description
East Central Illinois Coal	Washed 1 1/2" x 0" and Washed Stoker 1 1/4" x 1/4". Freeze and/or oil treatment are available. Transportation: Truck and Rail on CSX
Southern Illinois Coal	Washed 2" x 0". Freeze treatment is available. Transportation: Truck; Rail on Union Pacific System; and Barge from Cora Dock (MP 99 UMR)

III. TECHNOLOGY RESOURCES

Advanced Utilization: Providers of technology and equipment designed for utilization in a system environment which allows for combustion of coal without significant air or water pollution or solid waste stream control problems.

Acurex Corporation
Environmental Systems Division
485 Clyde Avenue
P.O. Box 7044
Mountain View, CA 94039

ACUREX Corporation
Environmental Systems Division

Telephone: (415) 961-5700
Telex: 325961
Fax: (415) 964-5145
Chief Operating Officer: William Dean, President
Division General Manager: William Byars, Vice President
International Sales Manager: David Delasanta
Domestic Offices: TRIANGLE PARK, NC: P.O. Box 13109, Research Triangle Park, NC 27709
International Offices: Please contact headquarters for information.

The Environmental Systems Division of Acurex Corporation provides a full range of fuel services to government and industry. These include combustion facility design, operation and maintenance; environmental engineering and pollution control; and emissions sampling and analysis. Through its research for federal and state agencies such as the Environmental Protection Agency, the Gas Research Institute, the Department of Energy, and the California Energy Commission, the division develops technologies for commercial application and is able to provide industry with turnkey, state-of-the-art solutions for all combustion-related environmental engineering needs.

Product/Service	Description
Advanced Utilization	Testing of solvent-refined coal; assessment of clean coal use in stationary and mobile engines; testing of coal-oil mixtures in boilers; fuel staging research; assessment of coal-oil mixtures as light-off fuel; hot gas cleaning technology for coal-fired, pressurized, fluidized bed combustors.
Architecture/Engineering	Prototype design, fabricate and install coal combustion research furnaces. Design, fabricate and install pilot coal gasifiers, and fluidized bed combustors.
Boiler Equipment	Low SO_2 and low NO_x combustion control technology; boiler modification/engineering; test coal additives to alter flyash characteristics; co-firing of hazardous waste in boilers; perform risk assessment of controlling NO_x emission from coal utility boilers.
Coal Derivatives	Clean coal use in stationary and mobile engines; demonstrate coal-oil mixture prep plant.
Facility Construction	Construction management; install coal combustion furnace; install pilot coal gasifier; supply anthracite gasifier.
Facility Operation	Operation of coal burning plants/equipment; O&M of fluidized bed combustor.

AEP Energy Services, Inc.
1 Riverside Plaza
Columbus, OH 43215

Telephone: (614) 223-1000
Telex: 810 482 1627
Fax: (614) 223-1822/1823
Chief Executive Officer: W. S. White, Jr., Chairman
International Sales Manager: Donald A. Dick, Vice President & Managing Director

AEP Energy Services, Inc. (AEPES) is a wholly owned subsidiary of American Electric Power Company, Inc. (AEP), one of the largest electric utility holding companies in the U.S. For more than eighty years, AEP has planned, engineered, designed and constructed the most highly integrated and interconnected system in the world. Today the AEP System consists of over 23,000 MW of generating capacity, over 2,000 miles of 765 kV transmission line and over 100,000 miles of distribution line to provide reliable power to over 2.6 million customers. AEP is one of the largest users of coal in the U.S. and we mine over 11 million tons of coal annually from our four subsidiary mining divisions. Our expertise in utility operations and mining extends from longwall mining and the largest capacity coal washing plant in the U.S. to advanced research in coal utilization through the construction of a 70 MW, $185 million pressurized fluidized bed combustion (PFBC) demonstration plant scheduled for operation in 1990. AEPES was established to offer the experience and expertise of AEP and its subsidiaries to foreign and domestic organizations, public and private companies, and government agencies.

Product/Service	Description
Architect/Engineering Services	Power plant, T&D, substation, environmental and mining engineering/consulting; advanced coal utilization technology; testing and training.

AFT, Inc.
200 Public Square
21-3604-K
Cleveland, OH 44114-2375

Telephone: (216) 586-5206
Telex: 6873120
Fax: (216) 586-5448
Chief Executive Officer: Jerry J. Oliver
International Sales Manager: William F. Christensen
Domestic Offices: BRIDGEPORT, NJ: 618 Heron Drive, P.O. Box 339, Bridgeport, NJ 08014

AFT, Inc. is a wholly owned subsidiary of BP America and is involved in the production and marketing of coal fuels that have been beneficiated using AFT's patented SPRAYFLOT™ flotation cells. The company also licenses the technology and participates in joint ventures worldwide. One of the original developers of coal-water slurries, the company is now able to apply its mineral separation technology to the beneficiation of coal waste streams.

Product/Service	Description	
Coal Mining	SPRAYFLOT™	The SPRAYFLOT™ flotation cell can be used to effectively reduce ash and sulfur levels in high-ash coal waste streams. As the integral part of AFT's unique beneficiation system, it ensures improved separation, selectivity and recovery, when compared to conventional flotation methods.
Advanced Utilization		

ARCTECH, Inc.
5390 Cherokee Avenue
Alexandria, VA 22312

Telephone: (703) 642-4190
Fax: (703) 642-4021
Chief Executive Officer: Daman S. Walia
International Sales Manager: Tom Paulson

ARCTECH, Inc. is a "spinoff" company organized by the Atlantic Research Corporation of Alexandria, Virginia. ARCTECH is focusing on development and marketing of coal bioprocessing technologies and products. The ARCTECH group pioneered biotechnology research to remove organic sulfur from coal, and convert coal into clean fuels like methane and oxygenated alcohol fuels. One of the by-products of ARCHTECH's coal technologies is organic base fertilizer, termed as "ACTOSOL." ARCTECH is now actively marketing the ACTOSOL in the United States and seeks to develop an international market for this product. ARCTECH also provides services to develop bioprocess technologies for specific coal resources.

Product/Service	Description
ACTOSOL	ACTOSOL is a coal derived organic base fertilizer designed for retail and commercial use. The humic acids are extracted from the coal with the ARCTECH proprietary technology and formulated into a fertilizer with the required nutrients. The humic acids are known to act as nutrient activators and this new product is a preferred fertilizer over the commercial inorganic fertilizers.
Bioprocess Technology	ARCTECH provides services to develop bioprocessing technology for specific coal resources. To date most of the technology development is for low rank coals such as brown coals, lignite, and sub-bituminous.

Arthur D. Little, Inc.
Acorn Park
Cambridge, MA 02140

Telephone: (617) 864-5770
Telex: 921436/921435
Fax: (617) 661-5830, 661-5831, 661-1622
Chief Executive Officer: C. R. LaMantia
International Sales Manager: H. A. Riker
Domestic Offices: CAMBRIDGE, MA; NEW YORK, NY; SAN FRANCISCO, CA; LOS ANGELES, CA; HOUSTON, TX; WASHINGTON, DC
International Offices: Offices worldwide; please contact company headquarters for further information.

Arthur D. Little, Inc., is an international management and technology consulting firm. Since 1886, Arthur D. Little has helped clients benefit from change by applying science, technology and advanced management concepts, and translating plans into action. Today, with a total staff in excess of 2500, about half of Arthur D. Little's work is in management consulting and half is in applied research in the physical and life sciences and engineering. Since the resurgence of interest in coal in the late 1960s, Arthur D. Little has been active in many aspects of the coal business -- management, mine engineering, acquisitions, coal procurement/contracting, utilization, gasification and advanced combustion research. Arthur D. Little's experience includes both metallurgical and steam coal.

Product/Service	Description
Advanced Utilization	Arthur D. Little is active in evaluating the feasibility of, and making technical recommendations on, emerging clean-coal technologies. Assignments for clients include: atmospheric, circulating, and pressurized fluidized bed combustion; integrated gasification/combined cycle, clean fuels and alternative fuels; emission control equipment.
Coal Industry	For a wide range of clients, Arthur D. Little is active in all phases of coal industry activity. Assignments include property evaluations, productivity improvement, coal preparation, transportation, contract negotiation, market assessment, pricing policy/forecasts, and strategic planning.

ASEA Babcock
One Park Centre, Ste 301
Wadsworth, OH 44281

Telephone: (216) 334-2504
Fax: (816) 336-8662
Chief Executive Officer: Charles J. Baroch, President
International Offices: SWEDEN: Krishna Pillai, ABB Carbon AB. S-612 20 Finspong TEL. 46-122-81694, FAX 48-122-18708

ASEA Babcock is a partnership between ABB Carbon and Babcock & Wilcox and provides project engineering, marketing and servicing of Pressurized Fluidized Bed Combustion (PFBC) power plants in the United States. The plants are designed to meet the needs of the utility, cogeneration and industrial markets for clean, economic fossil-fired power plants in the capacity range from 80 to 1000 MWe. Units are sold for both new capacity and repowering of existing plants. Through the partnership with Babcock & Wilcox, (B&W), a subsidiary of McDermott, Inc., ASEA Babcock offers a leading worldwide supplier of fossil-fueled steam generating equipment and a principal producer of fuel and equipment, specialty tubing and process controls. ABB Carbon is one of the world's leading electrical and electronics supplier. Its business is based primarily in the power, industrial equipment and transportation sectors. In the power sector, ABB is a leading supplier of equipment and installations, power transmission and distribution for hydro, nuclear as well as fossil power stations.

Product/Service	Description
Advanced Utilization	PFBC Combined Cycle plants provide low cost power generation in an environmentally acceptable manner while burning a wide range of coals. A PFBC plant can achieve thermal efficiencies exceeding 40% with a levelized bus-bar cost below any competing coal technology. In addition to the economic benefits, the built-in feature of environmental control (both SOx and NOx) in the combustion process eliminates the need for any gas clean-up such as scrubbers. Potential benefits of this technology include: High Power Density - less combustor weight and volume for the same power output; smaller size permits increased modular construction; modular construction allows for greater shop fabrication, reduced construction time, higher quality control and standardization. Deep Fluidized beds -Higher combustion efficiency approaching 100%; lower sorbent requirements for the same sulfur capture. Excellent NOx control. Higher heat transfer rates to inbed tube surface resulting in less surface for a given power output. Fuel flexibility. High thermal efficiency-Heat rates 10 to 15 percent lower than an AFBC or CBFC simple cycle plants. The lower fuel requirements for the same power output and the lower sorbent requirements for PFBC also mean significantly less total ash and therefore less solid waste.

Atlantic Research Corporation
5390 Cherokee Avenue
Alexandria, VA 22312

Telephone: (703) 642-4000
Telex: (703) 754-2521
Fax: (703) 642-4021
Chief Executive Officer: William H. Borten
International Sales Manager: Edward T. McHale

Atlantic Research Corporation is an advanced technology firm with activities in research, service, and production of solid rocket motors, electronic equipment, advanced materials, and energy sources. The primary activity in the energy area has been development of a coal-water-fuel product, which has been brought to the point of commercialization.

Product/Service	Description
Coal-Water Fuel (Coal Derivatives)	The coal-water-fuel slurry produced by Atlantic Research Corporation is marketed under the registered tradename ARC-COAL®. This product is a very fluid, highly stable slurry which typically contains 70% coal and 30% water. It is intended as a replacement fuel for heavy oil in industrial and utility boilers and other types of combustors. Atlantic Research has licensed the proprietary technology to produce this fuel to several organizations throughout the world. The company provides technology transfer, plant design, and engineering services for licensees and will consider direct supply of the ARC-COAL® product to users.

Babcock & Wilcox
Power Generation Group
20 S. Van Buren Avenue
Barberton, OH 44203-0351

Babcock & Wilcox
a McDermott company

Telephone: (216) 753-4511
Telex: 986406
Fax: (216) 860-1886
Chief Executive Officer: Robert E. Howson
International Sales Manager: Ian K. Anderson
Domestic Offices: NEW ORLEANS, LA: McDermott International, 1010 Common Street, New Orleans, LA 70160
International Offices: CANADA: Babcock & Wilcox International, 581 Coronation Blvd., Cambridge, Ontario N1R 5V3

The Babcock & Wilcox Company has been a leader in coal-fired steam boilers ever since George Babcock and Stephen Wilcox were granted a patent on the safety tube boiler in 1867. Today, B&W builds coal-fired boilers with steaming capacities from 100,000 pounds per hour up to 9,300,000 pounds per hour. Reliable operation has always been a key goal. American Electric Power operated its Mountaineer power plant -- including a B&W 1300 MWe boiler -- continuously for 607 days in 1986 and 1987. Let us provide you with the same quality.

Product/Service	Description
Boilers	Conventional boilers fired by stoker or pulverized coal. Fluid bed boilers of bubbling, circulating, and pressurized design.
Burners	Conventional and low NOx.
Pulverizer Mills	Our rugged MPS model mill has been proven in over 600 units on a side variety of coals.
Environmental Control Systems	In cooperation with the Clean Coal Program of the U.S. Department of Energy, B&W has demonstrated sulfur removal in the lower furnace (fluid bed), the upper furnace (LIMB), the boiler backend (LIDS), and in the precipitator (ESOx). Consider B&W if you need a customized retrofit application to minimize sulfur.
Flue Gas Desulfurization (scrubbers)	B&W scrubbers are in operation and construction from 25 MWe to 1300 MWe, using lime, limestone, thiosorbic lime, and sodium.

Bechtel Enterprises
50 Beale Street
P. O. Box 3965
San Francisco, CA 94119-3965

BECHTEL

Telephone: (415) 768-8502
Telex: U.S. 34783, Int'l. 184907 BECHTEL. SFA
Fax: (415) 768-1416/2154
Chief Executive Officer: John W. Weiser
International Sales Manager: Stephen C. Williams
Domestic Offices: GAITHERSBURG, MD: 15740 Shady Grove Road, Gaithersburg, MD 20877-1401 TEL. (301) 258-3934;
WASHINGTON, DC: 1620 Eye Street, N.W., Suite 703, Washington, DC 20006-4005 TEL. (202) 393-4747
International Offices: ENGLAND: Charles W. G. Allen, 245 Hammersmith Road, London W6, 8DP TEL. 44-1-846-5951

Bechtel Enterprises, a member of the Bechtel group of companies, is a leading developer and merchant banker in the engineering and construction industry. Comprehensive financing services are provided to help partners and clients in every phase of development. Bechtel Enterprises actively participates in each phase of project development, from feasibility analysis and commercial structuring to management of engineering, construction, and operations. Within Bechtel Enterprises, Bechtel Financing Services, Inc. provides a full range of project financing services.

Product/Service	Description
Project Development	Bechtel Enterprises acts as a development partner, sharing project risks, providing commercial expertise, and managing technical requirements. Bechtel Enterprises can fund high-risk development efforts and provide equity to take long-term ownership positions in development projects.
Project Financing	Bechtel Enterprises has raised over $6 billion in financing for client projects over the last decade. Financing services include feasibility analysis, modeling, commercial and security structuring, and arranging project debt and equity.

CLI Corporation
430 Park West One
Pittsburgh, PA 15275



Telephone: (412) 788-6688
Telex: 510-100-7619
Fax: (412) 788-6690
Chief Executive Officer: David G. Chedgy
International Sales Manager: David G. Chedgy
International Offices: Please contact company headquarters for further information.

CLI Corporation is a major design and construction company in the coal and mineral industry. The Corporation specializes in feasibility studies, definite estimates, engineering and turnkey construction for coal preparation and other mineral processing plants and the associate material handling systems. The Company also produces specialty equipment related to the processing industry. A subsidiary company is also involved in contract operations of mining facilities. The company has internationally recognized coal and mineral processing specialists and a full complement of professional engineers and construction specialists.

Product/Service	Designation	Description
Architecture/Engineering	CLI-1	Conceptual, preliminary and actual design of coal and mineral process plants and material handling system including conveying, crushing, blending and storage.
Coal Mining	CLI-2	Contract operations of mines and processing plants including owner/operator contracts. Major coal processing of contracts of 1200 tph presently under contract.
Facility Construction	CLI-3	Construction of turnkey or negotiated process plants and material handling facilities.
Advanced Utilization	CLI-4	Producer of ultra-low ash and sulfur coal and coal-water-slurries (CWS).

Coal Quality Development Center
A Division of Electric Power Research Institute
P. O. Box 98
Homer City, PA 15748

CQDC

Telephone: (412) 479-3503
Fax: (412) 479-4181
Chief Executive Officer: Clark Harrison
International Sales Manager: James Parkinson

The Coal Quality Development Center (CQDC) is owned by the Electric Power Research Institute. Its engineering and technical staff has unparalleled experience with coal cleaning equipment and processes, including advanced coal cleaning methods. CQDC's 25-tph plant is the only commercial-scale coal cleaning test facility in the world. CQDC engineers have comprehensively characterized coals of all ranks, established a coal quality database, demonstrated and tested various cleaning problems at power plants, developed a computer program to test sampler bias, and implemented successful technology transfer programs through videotapes and printed materials. Customers include the U.S. Department of Energy, utilities from across the U.S., state agencies and research institutions.

Product/Service	Description
Contract Research	Develop and test innovative processes and hardware for cleaning, sampling, weighing and analyzing coal.
Equipment Demonstration	Test new coal cleaning, weighing and sampling systems from pilot to commercial scale using state-of-the-art test equipment and analytical procedures.
Plant Testing	Test processes, systems and components in commercial coal cleaning plants and power stations.
Product Commercialization	Commercialize new products, processes and research through proven technology transfer methods.

Combustion Power Company, Inc.
1020 Marsh Road, Suite 100
Menlo Park, CA 94025

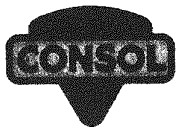


Telephone: (415) 324-4744
Fax: (415) 324-0788
Chief Executive Officer: Frank Walton
International Sales Manager: Don McKenzie
Domestic Offices: RIDGEWOOD, NJ: 1200 E. Ridgewood Ave., Ridgewood, NJ 07450 TEL. (201) 652-9298

Combustion Power Company was founded in 1968 to develop and commercially sell environmentally acceptable energy generation equipment. Presently Combustion Power markets a Fines Circulating Fluidized Bed system (FICIRC™) which fires solid and waste fuels to generate steam or hot air for either Rankine or Brayton cycle applications ranging from 10-100 MWe. Key to the technology is the achievement of very low emissions rates for NOx, SOx, PM and hydrocarbons. Combustion Power is also involved in the initial commercialization phases of a high temperature, high pressure granular bed filter.

Product/Service	Designation	Description
Fines Circulating Fluidized Bed Boilers	FICIRC™ Boilers	Single boiler sizes range from 100000 to 400000 pph at steam conditions up to 1000°F and 1600 psig. These systems meet the most stringent air emissions requirements in the USA - those of the Los Angeles area in California when firing petroleum coke, coals, biomass and other solid and waste fuels.
Fines Circulating Fluidized Bed Air Heaters	FICIRC™ Air Heaters	Single air heater systems for Brayton cycles range in size from 10-30 MWe at air conditions (at the outlet) of 1450°F and 600 psia. These systems meet stringent air emissions standards when firing petroleum coke, coals, biomass and other solid and waste fuels.
High Temperature, High Pressure Flue Gas Filtration	GBF	These filters clean flue gases to 10 ppm of particulate in either oxidizing or reducing flue gas atmospheres up to 20 atmospheres and 1600°F.

Consolidation Coal Company
Consol Plaza
1800 Washington Road
Pittsburgh, PA 15241



Telephone: (412) 831-4382
Telex: 247-634
Fax: (412) 831-4571
Chief Executive Officer: B. R. Brown
International Sales Manager: Walter E. Schrage
Domestic Offices: NORFOLK, VA: 201 Granby Mall, Suite 216, Norfolk, VA 23510 TEL. (804) 627-6261, FAX (804) 625-5088, TELEX 240403 CONSOL NORF; BALTIMORE, MD: Consolidation Coal Sales Company Terminal, 3800 Newgate Avenue, Baltimore, MD 21224 TEL. (301) 631-7000, FAX (301) 631-7022
International Offices: BELGIUM: Godefroid Coal Trading and Shipping S.A., 37-41 Rue du Congress, Brussels 1000 TEL. 011-32-2-218-7220, FAX 32-2-218-6192, TELEX 846-21434

Consolidation Coal Company (Consol) operates 25 underground and surface mines in nine states and Alberta, Canada. The company is the second-largest coal producer in the United States and holds 6.1 billion tons in steam and metallurgical-grade coal reserves. More than 80 percent of Consol's annual production of more than 55 million tons of steam coal for electricity generation. Nearly 11 million tons of high-grade metallurgical coal is produced annually. Consol mines are linked to major rail routes or the inland waterway for shipment to domestic customers and to exporting points on both coasts and the Gulf of Mexico.

Product/Service	Description
Steam Coal	Consol has exported steam coal since the early 1900s. Today consol exports steam coal to eight countries from mines in northern West Virginia, southwestern Pennsylvania and eastern Kentucky. Exporting points are Consolidation Coal Sales Company's (CCSC) terminal in the Port of Baltimore or terminals in Hampton Roads, Virginia and New Orleans, Louisiana.

(Continued on next page)

Consolidation Coal Company (Continued)

Metallurgical Coal	Consol exports high-quality metallurgical coals from mines in southwestern Pennsylvania, West Virginia and Virginia. Low and mid-vol coals from southern Appalachian reserves are rail-shipped to Norfolk, Virginia for export, and mid- to high-vol coal through Newport News, Virginia. Pittsburgh Seam high-vol is shipped through CCSC's Baltimore terminal via New Orleans.
Coal Research	Consol maintains the U. S. coal industry's largest and most complete coal research organization and facilities. Located near Pittsburgh, Pennsylvania, Consol Research & Development works to improve coal mining, processing and combustion technologies. Consol R&D's 1.5 million BTU/hr. pilot combustor, the only one of its kind in the world, can simulate a wide range of boiler configurations to help customers make optimum fuel choices.
Transportation	Consol maintains a transportation and distribution group which coordinates coal shipments and quality control. Consol also provides complete terminaling services through CCSC's Baltimore terminal or through contractual arrangements with other exporting facilities. CCSC's terminal is serviced by two major U. S. rail carriers and has on-site ground storage of 12 million tons, which allows extensive coal blending capabilities and eliminates demurrage charges.

Electric Fuels Corporation

235 Third Street South
P. O. Box 15208
St. Petersburg, FL 33733

Telephone: (813) 892-2700
Telex: 514168
Fax: (813) 892-2702
Chief Executive Officer: Richard D. Keller, President
International Sales Manager: Ernst A. Upmeyer III, Vice President, Albert W. Pitcher, Vice President

Electric Fuels Corporation (EFC) through its many subsidiaries is involved in coal mining, coal transportation, coal transfer facilities, fuel research in the coal area and the development of coal-based alternative fuels. Electric Fuels has developed a coal management system that has proved to be successful and highly competitive in supplying coal from mine site to the customer. This fully-integrated system is composed of five essential groups: coal, operations, marine and terminaling, alternative fuels and international marketing. The integration of these groups under Electric Fuels' management provides the necessary exposure to all phases of the coal industry.

Product/Service	Description
Advanced Utilization	With access to experts in virtually every application of coal combustion, Electric Fuels can provide qualified technical know-how in the areas of ash utilization, mineral and metal recovery from ash and in ash disposal. From start to finish, Electric Fuels' customers are assured of experienced assistance with all their coal handling needs. EFC has developed services ranging from field and laboratory functions to advanced computer support.
Coal Derivatives	Electric Fuels' involvement in the development of alternative fuels is through COMCO, a leader in the manufacture of coal-oil mixture (COM), coal-water mixture (CWM) and petroleum coke-oil mixture (PETCOM). Coal-liquid mixtures are produced at COMCO's Port Sutton, Florida facility. REDICOAL, COMCO's new powdered coal product for industrial and utility use, has proved to be an economical replacement for fuel oil and natural gas.
Coal Mining	The coal group is responsible for the mining and preparation of coal from sites containing approximately 215 million tons of reserves located in the states of Virginia, West Virginia and Kentucky. Origin points have capability to load both trucks and unit trains.
Coal Transport	Marine Equipment Management Corporation, a wholly-owned subsidiary, handles coal from all inland river origins in either single barge or unit tow lots. Standby loading is available. Covered barges are available. MEMCO also offers switching and fleeting services at various Mississippi River ports. Dixie Fuels Limited offers handling, storing, terminaling and transporting bulk cargo by sea-going marine transportation equipment.
Facility Operations	International Marine Terminals is a bulk materials handling facility strategically located near the mouth of the Mississippi River. The recently expanded terminal consists of modern facilities, ground storage/blending and a coal testing laboratory operated by an independent agent. Hatfield Terminals operates transfer facilities in Cincinnati, Ohio, on the Ohio River and near Charleston, West Virginia, on the Kanawha River. Kentucky May Coal operate a coal transfer facility on the Big Sandy River.

Ellison Consultants
4966 Tall Oaks Drive
Monrovia, MD 21770



Telephone: (301) 865-5302
Fax: (301) 831-5443
Chief Executive Officer: William Ellison
International Sales Manager: Gerd A. Ellison

The firm comprises technical development and engineering design specialists serving as independent consultants since 1981. The company is internationally recognized for its worldwide, coal-related, consulting work assignments and publications and oral communications experience for technology transfer to and from U.S.A. in the field of coal energy development and environmental pollution control.

Product/Service	Description
Stack Emission Control	The firm serves as a consultant to provide expertise in project planning and design activity for evaluation and utilization of available and emerging technologies for control of particulate, SO_2 and NOx emissions in firing of bituminous coal of high or alternative low sulfur content.
Management of Collected Waste	The firm offers specialized consulting service in coal-fueled project planning and design of management and marketing of solid and liquid waste byproducts generated by diverse means of control of environmental pollution.

Energotechnology Corporation
497 Massachusetts Avenue
Cambridge, MA 02139

Telephone: (617) 492-3700
Fax: (617) 492-3705
Chief Executive Officer: E. Stephen Miliaras, Managing Director
International Sales Manager: Damon W. Lawrence, Marketing Director

Energotechnology Corporation was founded in 1975 to provide consulting services in energy and power generation for industry, utilities, business and governmental agencies and to conduct research and development in energy, power generation, pollution abatement, regulatory affairs, and related areas of technology. Energotechnology's engineering staff includes senior men in the mechanical, electrical, civil/structural and chemical/environmental fields who are experienced in power plant design and in related work. Our proximity and contacts with the well-known nearby universities offer us and our clients the opportunity to utilize as consultants various experts in their respective fields should the need arise.

Product/Service	Description
Advanced Utilization	Energotechnology has developed an innovative and low cost clean coal combustion technology for power generation which combines simple coal cleaning and power cycle modifications and is retrofitable to existing older coal-fired power plants and can result in uprating while reducing emissions. The proprietary technology can also reduce the cost of new power plants.
Technical Consulting	Energotechnology has also developed innovative and low cost power generation concepts from the combustion of refuse, the conversion of oil/gas designed boilers to coal-fired, and a coal-fired power plant with low cost, built-in peaking capability.

Energy and Environmental Research Corporation
18 Mason
Irvine, CA 92718

Energy and Environmental Research Corporation

Telephone: (714) 859-8851
Telex: 181787
Fax: (714) 859-3194
Chief Executive Officer: Thomas J. Tyson
International Sales Manager: Michael P. Heap, President
Domestic Offices: ORRVILLE, OH: 1645 N. Main, Orrville, OH 44667 TEL. (216) 682-4007, FAX (216) 684-2110; DURHAM, NC: 3622 Lyckan Parkway, Durham, NC 27707 TEL. (919) 489-1726, FAX (919) 493-5670; WHITEHOUSE, NJ: P.O. Box 189, Whitehouse, NJ 0888 TEL. (201) 589-1726, FAX (201) 534-9018
International Offices: Please contact company headquarters for further information.

EER specializes in combustion and air pollution control for coal. This includes the development and application of advanced combustion systems and emission control equipment. EER also specializes in the tuning and optimization of combustion equipment. This includes burner balancing, sootblower optimization and other techniques to produce optimum thermal performance and minimum emissions. EER has experience with all fossil fuels including coal, oil and gas. EER also has experience in the incineration of waste materials including hazardous waste, municipal solid waste and medical waste. Annual sales are approximately $9,000,000. Employees number about 100, mostly engineers with advanced degrees.

Product/Service	Description
Coal Quality Evaluation	Comparative evaluations of alternate coals including analysis and test burns.
Emissions Compliance	Evaluations of alternate strategies for meeting NOx, SO_2 and particulate emission regulations at minimum total cost.
Performance Optiminization	Tuning coal combustion systems for maximum efficiency, minimum emissions and minimum total cost.
SO_2 Control Systems	Several SO_2 control processes including in furnace and duct sorbent injection systems.
NOx Control Systems	Several NOx control processes including reburning, ammonia injection, flue gas recirculation, low NOx burners and several new technologies under development.

Foster Wheeler Corporation
Perryville Corporate Park
Clinton, NJ 08809-4000

Telephone: (201) 730-4000
Fax: (201) 730-4360
Chief Executive Officer: L. E. Azzato
International Sales Managers: B. P. Stephan, I. G. Lutes
Domestic Offices: ATLANTA, GA; BOSTON, MA; CHARLOTTE, NC; CHICAGO, IL; DENVER, CO; HOUSTON, TX; KANSAS CITY, MO; LOS ANGELES, CA; NEW ORLEANS, LA; NEW YORK, NY; PHILADELPHIA, PA; PITTSBURGH, PA; WASHINGTON, DC; AND WINTER PARK, FL
International Offices: AUSTRALIA: TELEX 152838 REWOP AA; CANADA: TELEX 055-60042; CHINA: TELEX 210396 REWOP CN; COLUMBIA: TELEX 396-43254 REWOP CO; ENGLAND: TELEX 851-263984; FRANCE: TELEX 842-210 782; HONG KONG: TELEX 37512 FWAL HX; ITALY: TELEX 843-310548; JAPAN: TELEX 2323192; NETHERLANDS: TELEX 844-34264; NIGERIA: TELEX 22365 FOSWLD NG; SINGAPORE: TELEX RS 39292 FWINTL; SPAIN: TELEX 83122275; contact the main office for further information.

Foster Wheeler Corporation is an engineering, manufacturing, construction, real estate development and service organization with 23 subsidiaries operating worldwide. Founded in 1927, it is currently one of the world's largest engineering and construction organizations. International activities are conducted by affiliates in England, France, Italy, Spain, and Canada. U.S. based industrial subsidiaries supply diversified engineering technologies and allied equipment. Foster Wheeler Energy Corporation, a major United States subsidiary, designs, fabricates, maintains, manufactures, and constructs steam generating equipment for electric utilities and industry. This Foster Wheeler subsidiary furnishes condensers, feedwater heaters, and other major auxiliary equipment for coal, oil, and gas-fired installations in the United States and abroad. Foster Wheeler's application of alternate energy sources have advanced the state of the art. Current projects involve refuse-to-energy plants, the cogeneration of industrial steam and electric power, a proprietary sludge drying process and high technology heat recovery equipment.

(Continued on next page)

Foster Wheeler Corporation (Continued)

Product/Service	Description
Advanced Utilization	Foster Wheeler Development Corp., Livingston, NJ (201) 535-2300
Architecture/Engineering (A&E)	Foster Wheeler USA Corp., Clinton, NJ (201) 735-4770
Boiler Equipment	Foster Wheeler Energy Corp., Clinton, NJ (201) 730-4310
Coal Derivatives	Foster Wheeler USA Corp., Clinton, NJ (201) 730-4606
Facility Construction	Foster Wheeler Constructors, Clinton, NJ (201) 735-5076
Facility Operation	Foster Wheeler Management Operations, Ltd., Houston, TX (713) 872-6911
Financing	Foster Wheeler Power Systems, Clinton, NJ (201) 730-4000

Honeywell Incorporated
Industrial Automation Systems Division
16404 N. Black Canyon Highway
Phoenix, AZ 85023

Honeywell

Telephone: (602) 863-5000
Fax: (602) 863-5692
Chief Executive Officer: Ed Hurd
International Sales Manager: Thomas Jeffries
International Offices: HONG KONG: Asia Pacific Inc., Suite 3408, One Exchange Square, Central TEL. (85205) 8445566, TELEX 81302 HAPG HX; SINGAPORE: Southeast Asia Ltd. Head Office, 1 Maritime Square #02-70, World Trade Center, 0409 TEL. (65) 278-4555, TELEX RS 34763 HNYWEL

Honeywell's Industrial Automation Systems Division, with headquarters in Phoenix, is the world's leading supplier of industrial process and control systems. Honeywell's systems are designed to increase plant productivity, improve operating efficiency and reduce energy consumption in an industrial setting. The division serves the process and manufacturing industries with emphasis on power generation, refining, bulk chemicals, oil and gas, fine chemicals, pharmaceuticals, pulp and paper, and consumer goods.

Product/Service	Designation	Description
Coal Management	TDC3000	Control system for management of coal form receipt until entry into combustion. Accounting of received coal at un-loading facilities, automatic control and accounting of storage at the stacker-reclaimer, control of tripper car feed to coal silo. Monitor and control of conveyors and emergency shutdown. Integration of weigh scales an coal analyzers.
Power Plant Coal/ Fuel System	TDC3000	Control of Coal Feed to Power Plant Boilers via mills, feeders, etc. Proportional feed vs. demand, with optimization capability. Monitor of emissions, and plant performance.
Fluidized Bed Boiler Control System	TDC3000	Control Systems for control of fluidized bed boilers. Complete boiler and turbine controls systems for power generation. Monitor of emissions and plant performance.
Coal Gasification Control Systems	TDC3000	Control of coal gasifiers, programmable for use with many processes. Complete management systems from unloader to gas out.

K-FUEL® PARTNERSHIP

K-Fuel Partnership
1999 Broadway/Suite 2505
Denver, CO 80202

Telephone: (303) 293-2992
Telex: 550233 T VENNERS DVR
Fax: (303) 293-8430
Chief Executive Officer: Ted Venners
International Sales Manager: Ted Venners
Domestic Offices: GILLETTE, WY: K-Fuel Processing Facility and Laboratory, P.O. Box 1777, Gillette, WY 82717 TEL. (307) 687-1013, FAX (303) 687-1635

K-Fuel Partnership was formed in 1984 to market and license the K-Fuel technology worldwide. On-going research and development, funded by the Partnership, has taken the technology through the bench-top, pilot plant, and full-scale demonstration facility phases, and into commercialization at the Fort Union Mine near Gillette, Wyoming. The Gillette facility includes a state-of-the-art laboratory, where feedstock evaluation and process and product analysis allows for optimum plant operation and a custom-made end product.

Product/Service	Description
Advanced Utilization	Low-rank feedstocks, and particularly subbituminous coals and lignites, require derating of capacity or costly equipment modifications in order to meet boiler requirements and ever-changing environmental restrictions. These feedstocks are difficult to handle and expensive to transport because of their high moisture content and combustibility. Using a proven, patented, advanced coal beneficiation technology that economically upgrades low-rank feedstocks, the high-Btu, low sulfur, low moisture, environmentally acceptable K-Fuel product addresses those problems.
Coal Technology	The K-Fuel process, a proven patented, advanced coal beneficiation technology that economically upgrades a variety of low-rank feedstocks, provides the utility or industrial user with a high Btu, low sulfur, low moisture, environmentally acceptable solution to their fuel requirements. This technology is available for licensing throughout the world.
Coal Industry	Low-rank coal reserves are abundant throughout the world; however, users prefer high-Btu coal for their boilers. The K-Fuel process, a proven patented, advanced coal beneficiation technology that economically upgrades low-rank coals, providing a high-Btu, low sulfur, low moisture, environmentally acceptable product. This technology is available for licensing throughout the world.
Coal Exporters	K-Fuel, produced using a proven, patented, advanced coal beneficiation technology that economically upgrades a variety of low-rank feedstocks, is a viable, high-btu, low sulfur, low moisture energy source for utility and industrial users. Produced to meet the user's boiler specification and having stable handling and storage characteristics, K-Fuel is competitively priced in the coal market.
Facility Construction	The K-Fuel process, a proven, patented, advanced coal beneficiation technology that economically upgrades a variety of low-rank feedstocks, provides the utility or industrial user with a high-Btu, low sulfur, low moisture, environmentally acceptable solution to their fuel requirements. K-Fuel Partnership can provide the technology license, construct the site-specific facility, train personnel, and/or operate the facility.

Lafarge Corporation
Southern Region
Trinity Fly Ash
P.O. Box 324
Dallas, TX 75221



Telephone: (214) 934-7300
Telex: 910 860 5288; EASYLINK - 5101009119
Fax: (214) 960-2527
Chief Executive Officer: Eric H. Sundquist, Vice President
International Sales Manager: C. L. ("Ham") Wenzel, General Sales Manager
Mike L. Ward, General Manager

Trinity Fly Ash markets quality fly ash within Texas, Oklahoma, Arkansas and Louisiana for use in portland cement concrete, concrete products, soil stabilization, solid waste solidification and oil well service applications. Trinity Fly Ash markets both C and F Chemistry Fly Ash from its fly ash distribution facilities under the registered trade name of TPA, Trinity Pozzolanic Admixture.

Product/Service	Designation	Description
Advanced Utilization	Fly Ash - TPA-0	High quality fly ash meeting the physical and chemical requirements of ASTM C-618-85, standard specification for fly ash and raw or calcined natural pozzolan for use as a mineral admixture in portland cement concrete. TPA-0 is an approved source of Class C Pozzolan by the Corps of Engineers.
	Fly Ash - TPA-L	Same description as TPA-0.
	Fly Ash - TPA-M	High quality fly ash meeting the physical and chemical requirements of ASTM C-618-85, Standard specification for fly ash and raw or calcined natural pozzolan for use as a mineral admixture in portland cement concrete. TPA-M is an approved source of Class F Pozzolan by the Corps of Engineers.
	Fly Ash - TPA-B	Same description as TPA-M.

MSE, Inc.
P. O. Box 3767
Butte, MT 59702



Telephone: (406) 494-7100
Fax: (406) 494-7230
Chief Executive Officer: Donald R. Peoples
Chief Operating Officer: John M. Sherick
Domestic Offices: BUTTE, MT: Component Development and Integration Facility (CDIF), P. O. Box 3767, Butte, MT 59702 TEL. (406) 494-7100; MultiTech Services Division, P. O. Box 4078, Butte, MT 59702 TEL. (406) 723-8213, FAX (406) 723-9377

MSE, Inc., operates the Component Development and Integration Facility (CDIF)--the largest coal-fired magnetohydrodynamic (MHD) testing facility in the world. The CDIF can also be configured to support engineering-scale development testing programs in other coal and energy technologies. MSE, Inc., provides services in process engineering, facility management and operation, plant engineering and power system design and analysis. MSE offers environmental permitting, monitoring and compliance services. MSE's EPA -- certified laboratory performs organic and inorganic analyses and offers chemical consulting and problem solving services.

Product/Service	Description
Coal Research and Development	Research and development in magnetohydrodynamics (MHD), coal handling and processing, high temperature combustion, and experimental hardware assembly and testing. Full analytical and date services are available.
Engineering Services	Facility and process design and engineering for coal and fossil fuel systems and power plants, including coal handling, pulverizing, inerting and drying, combustion, and instrumentation and control.
Facility Management and Operation	Facility management, startup, and operation to ensure reliable performance in compliance with approved procedures and safety, and environmental regulations.

(Continued on next page)

MSE, Inc. (Continued)

Laboratory Services	EPA-certified laboratory equipped to sample and perform organic and inorganic analyses on a wide range of sample types including water, soils, coal, tailing, ores, hazardous waste, and airborne pollutants.
Environmental Services	Full range of environmental services for mining, coal processing, and power industries.

The M.W. Kellogg Company
Three Greenway Plaza
Houston, TX 77046-0395

Telephone: (713) 960-2000
Telex: 166385 MWKHOC
Fax: (713) 960-2032

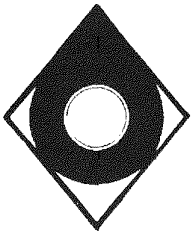
Chief Executive Officer: Donald C. Vaughn, President
International Sales Manager: J. Albert Stanley, Senior Vice President of Worldwide Sales
Domestic Offices: DARIEN, CT; WASHINGTON, DC
International Offices: ENGLAND: M.W. Kellogg Limited, The M.W. Kellogg Building, Stadium Way, Wembley, Middlesex, HA9 OEE TEL. 44-1-903-8484; BRITISH WEST INDIES: Cayman Islands; ARGENTINA: Buenos Aires; SINGAPORE; PEOPLE'S REPUBLIC OF CHINA: Bejing; INDONESIA: Jakarta; MALAYSIA: Kuala Lumpur

The M.W. Kellogg Company

The M.W. Kellogg Company, an international, technology-based subsidiary of Dresser Industries, Inc., is a world leader in the engineering, procurement, construction and commissioning of chemical, petrochemical, fertilizer, gas processing, refining, and computer integrated manufacturing projects. Additionally, Kellogg provides operations and maintenance capabilities. Kellogg is also on the forefront of clean fuels technology with the acquisition of the KRW coal gasification process and development of clean air technology. The company has completed more than 3,000 major projects and many smaller projects worldwide.

Product/Service	Description
Coal Gasification	Kellogg's KRW coal gasification process is capable of operating at high conversion on a wide range of coals. Feeds ranging from lignites and brown coal to high and low volatile bituminous coal have been tested in the Waltz Mill, PA pilot plant using both air and oxygen as oxidants and limestone and dolomite as in-bed sorbents for sulfur. The process can be used to produce low- or moderate-BTU gas for synthesis or for power generation. Hot gas clean-up using Zinc ferrite yields low SOx emissions, and low-BTU gas yields low NOx in combined cycle power plants.
Pressurized Circulation Fluid Bed Combustion	Kellogg's PCFBC processes pulverized coal and limestone or dolomite in a high velocity reactor, which completely combusts the coal while yielding very low SOx and NOx emissions. The pressurized flue gas is expanded to produce power in a combined cycle mode. The sorbent is fully oxidized in the reactor, eliminating subsequent treatment of the ash and spent sorbent for disposal. The technology is a low-cost alternative for cogeneration and power applications.
Flue Gas Desulfurization	Kellogg's flue desulfurization technology utilizes a limestone sorbent in a horizontal scrubber. The technology has been proven in commercial operation on large utility boilers feeding both high and low sulfur U.S. coals. The process features high sulfur removal (greater than 90%) and high calcium utilization. Magnesium or dibasic acid addition is often used to enhance the system. A special feature of the horizontal Weir scrubber is both low flue gas pressure drop and low sorbent circulation, resulting in significant operating advantages.
Design, Procurement, Construction and Plant Services	Kellogg offers EPC capabilities as well as operations and maintenance services on a worldwide basis.
Research and Development Services	Kellogg has bench-scale and pilot plant facilities for the development and testing of coal in gasification and combustion modes. Kellogg's coal lab allows the analysis of coal and ash properties. The company can also prepare design studies for a wide range of process and power applications based on the specific coal properties.

Otisca Industries, Ltd.
501 Butternut Street
Syracuse, NY 13208



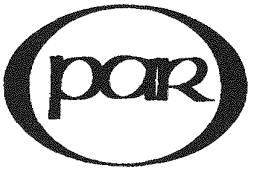
OTISCA

Telephone: (315) 475-5543
Fax: (315) 437-5296
Chief Executive Officer: Clay D. Smith
International Sales Manager: Clay D. Smith
Domestic Offices: Please contact company headquarters for further information.

The laboratory at Otisca Industries, Ltd. was established during the summer of 1972 with the purpose of developing a fundamental understanding of coal and unique processes for the desulfurization and deashing of coal. Over the past fourteen years and with significant contributions from C.D. Smith and D.V. Keller, Jr., over 60 patents have been issued most of which are focused on more efficient and economical means to clean coal of all ranks. The dense liquid bath and cyclone separation of fine coal using the liquid fluorochlorocarbons was one of our first innovations (1972) which in time led to the design and construction of a demonstration plant of 125 tons-per-hour (1978). That process was superseded by the T-process (1979) which permitted a large fraction of the coals to be deashed into the range of under 0.5% wt. % ash and the removal of essentially all of the pyritic sulfur with a BTU yield usually exceeding 97%. The latter has been demonstrated in a two ton-per-day pilot plant (1983) which up to date has produced over 150 tons of dry product in coal water slurry form.

Product/Service	Description
Advanced Utilization	Otisca Industries, Ltd. of Syracuse, NY has developed a patented coal beneficiation technology (the Otisca T-Process) which will remove virtually all of the pyritic and sulfatic sulfur and a significant quantity of mineral matter (ash) from virtually any coal. The T-Process, which is the core of a coal-water slurry manufacturing pilot plant, consists of first milling raw coal to very fine sizes (30 um or finer) followed by an agglomeration step, using pentane, to recover the ultra-clean coal. The coal-water slurry manufacturing pilot plant, which has been operational since 1983, has produced over 150 tons (dry) of coal-water slurry fuel (Otisca Fuel) with an average ash and sulfur content of 0.7 weight percent and 0.7 weight percent respectively. A 15 ton-per-hour Otisca Fuel manufacturing plant has been constructed and startup should be completed by the end of July 1989.

PAR Enterprises, Inc.
12601 Clifton Hunt Lane
Clifton, VA 22024



Telephone: (703) 818-9274
Chief Executive Officer: Wilfred J. Rebello, Ph.D.
International Sales Manager: Wilfred J. Rebello, Ph.D.
International Offices: Please contact company headquarters for further information.

PAR Enterprises, Inc. (PAR) is a small minority owned and operated engineering firm,. The company was formed to provide responsive and cost-effective Planning, Analytical and Research services to executives, scientists and engineers in government and industry. PAR's staff of professionals is particularly experienced with development and application of advanced energy conservation and coal technologies. The staff is also well versed in the development of economic and environmental assessments, energy management systems and energy information systems.

Product/Service	Description
Advanced utilization	The research & development services offered include coal preparation, coal gasification, coal combustion, power generation, heat engines, fuel cells, MHD systems, gas stream cleanup, alternate fuels, air pollution control and environmental impacts. In industrial energy utilization, R&D activities have included waste heat recovery systems, such as, heat exchangers, heat pumps and cogeneration systems and manufacturing process efficiency/productivity improvements using the disciplines of thermodynamics, heat transfer, fluid flow and combustion.

Pedco, Incorporated
11464 Lippelman Road
Cincinnati, OH 45246



Telephone: (513)771-2570
Fax: (513) 241-7958
Chief Executive Officer: E. E. McCracken
International Sales Manager: W. H. Long
International Offices: Please contact company headquarters.

Pedco has been involved with industrial plant design since 1967 and in the course of this activity has developed a patented technology for the clean and economical burning of high sulfur and high ash coals, including coal wastes. The technology accommodates the co-firing of certain industrial wastes. Pedco has licensed Zurn Industries to market and manufacture units using the technology in North America. Pedco is actively seeking licenses or joint venture partners in Europe, Asia and South America.

Product/Service	Designation	Description
Coal Combustion Technology	Pedco RCBCS	The Pedco Rotary Cascading Bed Combustion System is patented in the United States, Canada, Europe, Asia, and South America. It offers industry a means of burning otherwise unusable fuels in an environmentally safe and very economical manner. It can be used to produce process steam or to cogenerate electricity. It can accept a wide variety of fuel sizes and fuels such as gas, oil, and certain wastes, individually or co-fired with other feedstocks.

Pyropower Corporation
5120 Shoreham Place
San Diego, CA 92122



Telephone: (619) 458-3000
Telex: 506-170
Fax: (619) 458-9132
Chief Executive Officer: Eric J. Oakes
International Sales Manager: Callixtus J. Aulisio

Pyropower Corporation, a subsidiary of A. Ahlstrom Corporation, provides product development, engineering, design, procurement, construction, start-up, operations, and after market services for the AHLSTROM PYROFLOW circulating fluidized bed boilers. These boilers are for steam and electricity generation using solid fuel including, high moisture, high ash and high sulfur fuels in an environmentally safe manner. Successful on-schedule construction and reliable operating experience with PYROFLOW has been thoroughly demonstrated with over 75 units in commercial operation or under construction worldwide.

Product/Service	Description
Boiler Equipment	Pyropower offers complete fluidized bed boilers with auxiliary equipment plus additional balance of plant equipment.
Facility Construction	Pyropower offers complete construction of fluidized bed boilers with auxiliary equipment plus additional balance of plant equipment.
Facility Operation	Pyropower provides complete services to operate circulating fluidized bed boiler plants.
Financing	Pyropower provides full capabilities to arrange project financing for power projects.
Advanced Utilization	Pyropower is developing advanced utilization of solid fuel fired boilers such as pressurized fluidized bed boilers.

Radian Corporation
P. O. Box 201088
Austin, TX 78720-1088

Telephone: (512) 454-4797
Telex: RCA# 269263 RAD UR
Fax: (512) 454-7129
Chief Executive Officer: Donald M. Carlton, Ph.D.
International Sales Manager: R. Murray Wells
Domestic Offices: HOUSTON, TX: 10675 Richmond Ave., Suite 190, Houston, TX 77042 TEL. (713) 785-9225; LOS ANGELES, CA: 2250 E. Imperial Hwy, Suite 140, El Segundo, CA 90245 TEL. (213) 640-0045; IRVINE, CA: 7 Corporate Park, Suite 240, Irvine, CA 92714 TEL. (714) 261-8611; MILWAUKEE, WI: 5101 West Beloit Road, Milwaukee, WI 53214 TEL. (414) 643-2701; RALEIGH/DURHAM, NC: 3200 E. Chapel Hill Rd./Nelson Hwy. P. O. Box 13000, Research Triangle Park, NC 27709 TEL. (919) 541-9100; ROCHESTER, NY: 120 Corporate Woods, Suite 260, Rochester, NY 14623 TEL. (716) 292-1870; SACRAMENTO, CA: 10395 Old Placerville Road, Sacramento, CA 95827 TEL. (916) 362-5332; WASHINGTON, DC: 13595 Dulles Technology Dr., Suite 200, Herndon, VA 22071 TEL. (703) 834-1500

Radian Corporation provides technical services to industry and government, both domestically and worldwide. A principal player in wet scrubbing technology, the company has remained in the forefront of technology designed to permit the use of coal while meeting all applicable environmental requirements. Services provided by over 1,400 people at Radian Corporation include analyzing available options for the use of coal, including conceptual designs and preliminary cost estimates, assisting the client in selecting the most attractive technology, working with the client in their discussions with vendors and A&Es, and providing performance testing after start-up. Radian also supplies a full array of analytical chemical services as well as the design and operation of bench and pilot scale projects.

Product/Service	Description
Coal Technology	A principal player in wet scrubbing technology, the company has remained in the forefront of technology designed to permit the use of coal while meeting all applicable environmental requirements. Services provided by over 1,400 people at Radian Corporation include analyzing available options for the use of coal, including conceptual designs and preliminary cost estimates, assisting the client in selecting the most attractive technology, working with the client in their discussions with vendors and A&Es, and providing performance testing after start-up. Radian also supplies a full array of analytical chemical services as well as the design and operation of bench and pilot scale projects.

Riley Stoker Corporation
5 Neponset Street, Box 15040
Worcester, MA 01615

Telephone: (508) 852-7100
Telex: 920428
Fax: (508) 852-7548, (508) 852-7558
Chief Executive Officer: H. Kerner Smith
International Sales Manager: David A. Harris
International Offices: BELGIUM: Chaudronneries Pierre Broubon, Rue de la Station, 41 bis, 4341 AWANS TEL. (041) 63 88 20 21 22; AUSTRALIA: Clyde-Riley Dodds Pty., Ltd., 123 Gotha Street, Fortitude Valley, Queensland 4006 TEL. (07) 854 1522; FRANCE: FAMA, 8 Rue d'Athenes, 75009 Paris TEL. 42 82 93 31; JAPAN: Mitsui Engineering & Shipbuilding Co., Ltd., 6-4 Tsukiji 5-chome, Chuo-ku, Tokyo 104; COLOMBIA: Representaciones Internacionales Ltda., P. O. Box 949, Medellein TEL. 248-51-89 or 246-56-94; SWITZERLAND: Centrex S.A., 24 Avenue Dumas B P 305 1211, Geneva 25 TEL. (022) 46 82 26; EGYPT: Arab Engineering & Distribution Co., 2 Saraya El Korba Street, Garden City, P. O. Box 901, Cairo; INDIA: Ideal Enterprises, 402 Hemkunt Tower, 98 Nehru Place, Post Box 4411, New Delhi-110019 TEL. 6415435; ISRAEL: PETCO International Ltd., 55 Shderot Bialik, Ramat-Hashron TEL. (972) 3-5401812; PAKISTAN: Qamar Traders, P. O. Box 1014, Ikram Building, Outside Akbari Gate, Lahore-8 TEL. 62336 or 56936; TAIWAN: Taiwan Development Co., Ltd., 3rd Floor, 5 Tsing Tao East Road, Taipei R.O.C. TEL. (886) 2-3912366; VENEZUELA: Eduardo Calcano & Cia., C.A., Centr Plaza, Torre B-Penthouse, Avenida Francisco de Miranda, Apartado de Correos 613071 Chaca, Caracas 1060-A

Riley Stoker Corporation was founded in 1913. Since 1981 the company has been a subsidiary of Ashland Oil, Inc. Riley designs, manufactures and constructs traditionally-fired boilers, fluidized bed combustion boilers, and waste-to-energy systems in capacities from 222,675 to 2,086,188 kg/steam/hr (50,000 to 4,600,000 pounds of steam per hour).

(Continued on next page)

Riley Stoker Corporation (Continued)

Product/Service	Description
Boilers Stokers Pulvizers Construction	Riley manufactures a line of coal pulverizers, burners for coal, gas and oil, and stokers for all types of coal, cellulose fuels and waste. The company provides a range of services for boiler and fuel burning equipment, including inspections, repairs and maintenance. It has its own construction capabilities for complete boiler erection as well as modifications and rebuilds. Riley operates a center for fuel burning research, and a manufacturing plant in Erie, PA with easy access to water, rail truck and air shipping.

Schmidt Associates, Inc.
7333 Fair Oaks Road
Cleveland, OH 44146

Schmidt associates, inc.
CONSULTING ENGINEERS

Telephone: (216) 439-7300
Fax: (216) 232-9939
Chief Executive Officer: Charles M. Schmidt
International Sales Manager: George C. Repko
International Offices: Please contact company headquarters for further information.

Schmidt Associates, Inc. is an employee-owned professional engineering corporation comprised of dedicated, experienced engineers capable of performing a wide range of engineering and consulting services. These services include mechanical, electrical, structural, and chemical abilities, with vast experience in the industrial boiler market from studies and retrofitting of all types of existing boiler installations to the complete installation of new facilities encompassing any or all new technologies required in the industrial field today for not only technically successful operations, but also economical success as well. Schmidt Associates, Inc. has specialized in central utilities services for industrial, institutional, and governmental plants including studies, tests, application, and installation of new technologies in industry today.

Product/Service	Description
Advanced Utilization	Conducted extensive research and design work for the government on advanced coal utilization techniques for industrial boilers including coal-oil and coal-water mixtures, slagging coal combustors and fluidized bed boilers.
Architecture/Engineering	Expertise in coal utilization from conception of idea to detailed design.
Boiler Equipment	Specify appropriate equipment for clients.
Facility Construction	Detailed design of numerous coal facilities from point of coal receipt to exit of gases from stack. Conduct on-site inspection of facilities while under construction.

Stone & Webster Engineering Corporation
245 Summer Street
Boston, MA 02210

Telephone: (617) 589-5111
Telex: W.U. 94-0001
Fax: (617) 589-2156, (617) 589-8071
Chief Executive Officer: Frank W. Ries, Chairman
International Sales Manager: Raymond F. Rugg, Director of Marketing
Domestic Offices: CHERRY HILL, NJ; CHICAGO, IL; DENVER, CO; FORT LAUDERDALE, FL; HOUSTON, TX; NEW YORK, NY; SAN FRANCISCO, CA
International Offices: ENGLAND: Milton Keynes; CANADA: Toronto; Stone & Webster also maintains offices in the following cities: Paris, Abu Dhabi, Dammam, Riyadh, Kuala Lumpur and Seoul. Please contact headquarters in Boston for further information.

Stone & Webster Engineering Corporation, which is celebrating its Centennial during 1989, is one of the world's largest engineering and construction firms. Since its founding, as a two-man consultancy in Boston, the firm has planned, engineered and provided construction and construction-management services for utilities and industrial power concerns worldwide. Have designed and/or built plants with a total capacity exceeding 50 million kilowatts, the company is considered one of the world's largest and most experienced engineer-constructors of coal power facilities. Over the years, Stone & Webster has helped many domestic and international clients develop technologies that can lead to cleaner and more efficient use of coal. For instance, in the United States the company has conceptually designed integrated gasification/combined-cycle systems for new generating stations and evaluated the use of coal liquids for existing oil-fired stations. Stone & Webster also worked on the first utility coal-gasification project in Brazil. Today, we continue to work with government agencies and private firms on new ways to clean and burn fossil fuels. Our development projects include a process that will convert a mixture of high-sulfur coal and residual crude oil into clean-burning fuel, as well as a retrofit combustor system that eliminates a variety of pollutants and a furnace injection system that removes sulfur dioxide. Listed below, are some of the areas in which Stone & Webster applies its consulting, engineering and construction expertise.

Product/Service	Description
Advanced Utilization	Coal processing systems; direct and indirect liquefaction; coal gasification combined cycle power systems; advanced power generation systems; pressurized fluidized bed technology; externally fired high temperature gas turbine combined cycle systems and direct fired dual working fluid power cycles.
Coal Industry	Coal drying technologies; surface and underground coal mining; coal handling; fuel analysis.
Coal Mining	Correlation and preliminary evaluation of data; mine planning and engineering design (surface and underground): pit planning and design; underground planning and design, production engineering, land reclamation. Drilling; blasting engineering and optimization; equipment selection and justification; budget review; reserve analysis; haulroad design; coal evacuation and loading design; auxiliary utility design: compressor systems, water piping systems; ventilation design; slop stability engineering; economic analysis; fatal flaw analysis; geological aspects: exploration methods and requirements, preliminary evaluations.
Coal Transport	Railroad construction, design and engineering; truck-shovel optimization; coal slurry technology.
Facility Construction	Silo design and engineering; conveyor systems; coal loadout facilities; crushing operations and design.

Texaco Development Corporation
2000 Westchester Avenue
White Plains, NY 10650

TEXACO
DEVELOPMENT
CORPORATION
We've got the energy!

Telephone: (914) 253-4003
Telex: 1791144
Fax: (914) 253-7744
Chief Executive Officer: H. Richard Horner
International Sales Manager: Madeleine R. Marchese
International Offices: EUROPE: Ed Gerstbrein, Texaco International Limited, Weena 116, 3012 CP Rotterdam, The Netherlands TEL. (010) 4 14 66 11, TELEX 23573, FAX (010) 4 33 45 16; Dick Guenther, Texaco Technology Europe GMBH, Zeppellnalle 50, D-6000 Frankfurt/M. 90, Federal Republic of Germany TEL. 49-69-701047, FAX 49-69-6318-2020, TELEX 411569

Texaco Development Corporation (TDC) is responsible for the patent and licensing activities of its Parent Company, Texaco Inc. and a number of Texaco's subsidiary companies. As a wholly-owned subsidiary corporation, TDC has access to and active cooperation with all departments, affiliates and other subsidiaries of one of the largest integrated petroleum companies in the world. This provides TDC with research, engineering, producing,

(Continued on next page)

Texaco Development Corporation (Continued)

manufacturing, marketing and technical services availability in 96 countries. Texaco has been developing its gasification technology for over 40 years and has licensed over 90 oil and gas gasification plants around the world. It is the acknowledged leader in coal gasification with six commercial plants licensed worldwide; two of which are now in design and/or construction.

Product/Service	Designation	Description
Texaco Coal Gasification	TCGP	The Texaco Coal Gasification Process produces: Synthesis gas (H_2+CO) for manufacturing ammonia, methanol, hydrogen, oxo-chemicals, acetic acid & anhydride, and pure carbon monoxide as well as fuel gas (H_2+CO) for electric-power generation, refineries, industrial plants and city distribution and reducing gas (H_2+CO) for liberating metals from their ores. Synthesis fuel and/or reducing gases can be produced from solid carbonaceous fuels (including lignites, bituminous coals, anthracites and petroleum coke), coal tar and coal-liquefaction residue with pure oxygen, oxygen enriched air or air fed as the oxidant dependent upon the application. Solid feedstock is ground to a controlled particle-size distribution, slurried in water or oil, and pumped to a specially designed burner, which mixes slurry and oxidant in a refractory-lined, entrained-bed, slagging gasifier. Partial combustion under closely controlled conditions yields syngas, fuel gas, or reducing gas, which may be either quenched by direct contact with hot water or cooled indirectly in a syngas cooler (waste-heat boiler), so as to produce steam according to optimum energy utilization for the complete project. Gasifier-effluent slag accumulates in a lock hopper for easy removal. Because of the high temperature and pressure used in the gasifier, by-product tars, phenols, and hydrocarbons heavier than methane are not produced. Most of the process water is recycled. Water-soluble inorganic material is removed by processing a small stream of waste water. Sulfur released by gasification as H_2S, with a minor amount of COS, is removed from the cooled product gas in a conventional downstream gas-treating section and then routed to a Claus unit or a tail-gas-treating unit for sulfur recovery. Byproduct slag and elemental sulfur are marketable commodities and air emissions can easily be controlled to 10-20% of U.S. Environmental Protection Agency allowables for new source performance standards.

TRW Combustion Business Unit
2111 Rosecrans Avenue
El Segundo, CA 90245



Telephone: (213) 297-4550
Telex: 258646 CTRW UR
Fax: (213) 535-4150
Chief Executive Officer: Ronald E. Viani
International Sales Manager: John F. Archambault
International Offices: DENMARK: Hugh Sharman, Incoteco, Toldbodvej 12, 9370-Hals TEL. 45-8-251760, FAX 45-8-252555; ITALY: Carlo Stellin, CTIP S.p.A., Via Cesare Giulio Viola, 48, Magliana Vecchia, 00148 Rome TEL. 39-6-590-2502, FAX 39-6-685-7517; JAPAN: Shozo Kataharada, Business Development Department, Gadelius Energy, 27 Naniwacho Chuo-ku, Kobe 650 TEL. 81-78-391-7251, FAX 81-78-391-8988; UNITED KINGDOM: Peter Robinson, Ryan International Limited, Cypress Dr., St. Mellons, Cardiff CF3 OEG Wales TEL. 44-222-779357, FAX 44-222-792504

TRW is an international company strategically focused on providing products and services with a high technological or engineering content to space, defense, information systems, automotive and energy markets. Founded in 1901, the company employs about 73,000 people, many with sophisticated technical expertise, at about 300 locations in 21 countries. TRW Energy Units is the focal point for the energy business within the corporation and includes the Combustion Business Unit which provides an Entrained Coal Combustion System for retrofit or new utility and industrial boilers with environmentally acceptable emissions performance.

(Continued on next page)

TRW Combustion Business Unit (Continued)

Product/Service	Designation	Description
Entrained Coal Combustion System	Model/Maximum Capacity Model 35 50 MMBtu/Hr Model 45 100 MMBtu/Hr Model 55 150 MMBtu/Hr Model 65 200 MMBtu/Hr Model 70 250 MMBtu/Hr	The TRW Entrained Coal Combustion System is a new generation pulverized coal burning system that offers industrial and electric utility energy producers significant benefits, including operating flexibility, improved environmental performance, high efficiencies, and low capital cost. Simplicity of combustor design, with no moving parts, minimizes maintenance and the potential for failure and outages. Compactness of the unit allows installation in available space normally allowed for oil-firing systems.

Ultrasystems Engineers and Constructors Inc.
16845 Von Karman Avenue
Irvine, CA 92714

ULTRASYSTEMS ENGINEERS & CONSTRUCTORS — A HADSON COMPANY

Telephone: (714) 863-7000
Telex: 69-2356
Fax: (714) 852-8863
Chief Executive Officer: John Coyle
International Sales Manager: Joaquin Perez

Ultrasystems Engineers and Constructors Inc. (UEC) is a subsidiary of Hadson Power Systems. UEC provides engineering, construction, and turnkey services for a wide range of power and energy projects. Coal, gas and biomass fueled power plants in the range of 1-150 MWe have been successfully completed. UEC also offers several proprietary process technologies in coal and gas treatment. The Power Systems Group is adept and willing to participate in projects from initial development to turnkey engineering and construction through operation.

Product/Service	Description
Coal Coking	Mansfield Carbon Products coal coking and gasification units utilize simple traveling grate stoker furnaces to produce chemical quality coke and gas in a continuous process. Combined heat recovery units can provide economical process steam for a variety of applications.
Gas Desulfurization	The Hiperion gas desulfurization process utilizes a low energy catalyst to remove hydrogen sulfide from waste gas streams. The sulfur produced can then be converted into a chemical grade sulfur product with a small additional capital investment.
Gas Reforming	The Rentec process reforms waste gas streams to create low ash diesel fuels while eliminating flare problems. Even recovery of landfill gas streams may prove economical utilizing this process.
Engineering	A full range of engineering services is available including civil, structural, mechanical, instrumentation and electrical specialties. Complete support group services are also offered and include purchasing, expediting, scheduling and project and construction management.
Construction	Merit shop construction services are independently marketed for power and process related projects in the $1-60 million dollar range. Experienced staff construction managers and lead personnel utilize locally trained manpower for project execution.

Universal Energy International, Inc.
P.O. Drawer 5180
Little Rock, AR 72225

Telephone: (501) 666-2446
Telex: 536411,284794
Fax: (501) 682-7691
Chief Executive Officer: J. Frank Angelo
International Sales Manager: J. Frank Angelo
International Offices: Please contact headquarters for further information.

(Continued on next page)

Universal Energy International, Inc. (Continued)

UNIVERSAL ENERGY INTERNATIONAL, INC (UEI, USA) is a US Company involved in the development and commercialization of Advanced, Cyclonic, Rotary Kiln Combustion Systems, Afterburner, and Burner Systems for the clean and efficient combustion of all coals, lignites, slurrys, sludges, industrial and biomass wastes and blends/mixtures for heat, gas, flame (direct use such as calcination), steam and power production. UEI offers complete, 'turn key' systems including 'co-generation' systems in most countries of the world. UEI is interested in entering into License and Technical Collaboration with companies, globally, enabling some local manufacturing. UEI is actively involved in major research and development activities with the US Department of Energy, the University of Pittsburgh (PA), Bituminous Coal Research National Laboratory and other major institutions involving Sulfur capture from high Sulfur coals, during combustion, at precise temperatures, in UEI's' Fluidized Bed Rotary Kiln Combustion Systems.

Product/Service	Description
Cyclonic/Fluidized Rotary Kiln Combustion Systems	20-400 Tons per day, per train Combustion/Gasification modes of operation. Feed stocks-coals of all types, lignite, high sulfur high ash coals, slurry, sludges, biomass, hazardous/industrial wastes, blends-process heat/steam/power systems complete, turnkey.

Western Energy Company
16 East Granite
Butte, MT 59701



Telephone: (406) 723-5441
Telex: 910-963-2408
Fax: (406)782-8405
Chief Executive Officer: James J. Murphy, President
International Sales Manager: James M. Kelly
Domestic Offices: BILLINGS, MT: Western Energy Company, 13 N. Broadway, Billings, MT 59103 TEL. (406) 252-2277

Western Energy Company (WECO) is a wholly-owned subsidiary of Entech, Inc. which is the wholly-owned, non-utility subsidiary of Montana Power Company. WECO is engaged in the exploration, production and market of energy minerals and precious metals. WECO's Rosebud Mine, located near Colstrip, Montana, produced more than 16 million tons of coal in 1988 and WEC subsidiary, Northwestern Resources Co., produced nearly 8 million tons of coal in 1988 from its Jewett Mine, Jewett, Texas, and its Grass Creek Mine located near Kirby, Wyoming. WECO has patented a state-of-the-art coal beneficiation process and is currently planning to construct a 300,000 ton per year process demonstration plant at the Rosebud Mine. This plant is scheduled to go on-line sometime in late 1990.

Product/Service	Designation	Description
Advanced Coal Conversion	ACCP (Patent #4,725,337)	The Advanced Coal Conversion Process (ACCP) produces a high quality stable synthetic fuel from processing a continuous stream of low rank coal. The ACCP uses low pressure and moderate temperature, along with a blend of inert gases, specifically proportioned for the characteristics of the feed coal being used to dry the coal. The ACCP causes the moisture holding capillaries to shrink, and the carboxylic acid groups to be thermally destroyed. As a result of these physical and chemical changes, the coal becomes drier and hydrophobic. This stops any material reabsorption of moisture which could cause spontaneous combustion. Additionally, the ACCP significantly reduces the sulfur content of the feed coal. As the capillaries in the coal particle shrink, the ash and sulfur (pyrites) are liberated from the coal and can be easily removed. Organic sulfur leaves as a distillate. The net result of the ACCP is the transformation of low rank, subbituminous coal into a high quality synthetic coal product, in the bituminous rank, with greatly improved moisture, ash and sulfur characteristics.

Williams Technologies, Inc.
320 South Boston, Suite 831
Tulsa, OK 74103

Telephone: (918) 582-5811
Fax: (918) 584-0474
Chief Executive Officer: David R. Williams, Jr.
International Sales Manager: H. J. Brolick
International Offices: Please contact company headquarters for further information.

(Continued on next page)

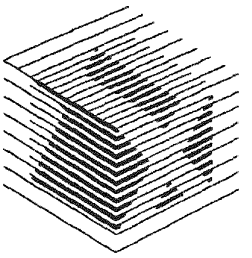
Williams Technologies, Inc. (Continued)

Principal business is project assessment, development and management from initiation of concept through commercial implementation, including financial sourcing. Manages R&D partnership for oil and mineral technologies, R&D program for coal liquefaction technology and operation of Black Mesa coal slurry pipeline. Provides consulting with regard to economic feasibility or technical evaluation of energy or resource projects. Manages operating facilities and technology development for others. Special expertise in development of coal slurry pipeline projects through past worldwide experience and ongoing operations management of Black Mesa pipeline.

Product/Service	Description
Coal Transport	Provides development, management, financial packaging and operation management of coal slurry pipeline systems.
Architecture/Engineering	Provides consulting services in planning and feasibility study, as well as management of design, construction and operations for coal slurry pipeline and oil and gas pipeline systems. Provide similar services for cogeneration plants and alternative energy projects.
Coal Derivatives	Management services for coal liquefaction and deep cleaning R&D.

Xcel Group, Inc.
1126 S. 70th Street
Suite N-206
West Allis, WI 53214

Telephone: (414) 475-4001
Telex: 269441
Fax: (414) 475-3578
Chief Executive Officer: Gerald T. Petersen
International Sales Manager: Paul S. Gurski



XCEL GROUP INC.

Process engineering firm with extensive background in coal technology process development to include the specification, design, construction, start-up and operation of coal processing equipment ranging from bench to commercial-scale facilities. In 1988, Xcel was awarded a design, supply and test NATO-funded contract in international competition for an R&D gasification facility to be located in Athens, Greece. Technical support services include feasibility assessments, U.S. souring of equipment, custom equipment design, market research and application studies. Particularly knowledgeable in U.S. utility market "clean fuel" needs and combined cycle applications. Xcel is readily accessible via the World Trade Council electronic network - address code: XCEL G.

Product/Service	Description
Technology/Evaluations	Evaluations of emerging and commercially mature technologies to include technical and economic evaluation for specific market applications.
"Clean Coal" Applications	Investigation of a specific technology or competing technologies for utility-scale or large industrial power generation applications.
Equipment Souring/Design	Identification of U.S.-based sources to meet specific processing needs or custom design and supply required equipment.
Operations Support	Start-up and operational procedures development and problem solving.

Architecture/Engineering: Firms providing power and/or industrial plant design services.

Acurex Corporation
Environmental Systems Division
485 Clyde Avenue
P.O. Box 7044
Mountain View, CA 94039

ACUREX Corporation
Environmental Systems Division

Telephone: (415) 961-5700
Telex: 325961
Fax: (415) 964-5145
Chief Operating Officer: William Dean, President
Division General Manager: William Byars, Vice President
International Sales Manager: David Delasanta
Domestic Offices: TRIANGLE PARK, NC: P.O. Box 13109, Research Triangle Park, NC 27709
International Offices: Please contact headquarters for information.

The Environmental Systems Division of Acurex Corporation provides a full range of fuel services to government and industry. These include combustion facility design, operation and maintenance; environmental engineering and pollution control; and emissions sampling and analysis. Through its research for federal and state agencies such as the Environmental Protection Agency, the Gas Research Institute, the Department of Energy, and the California Energy Commission, the division develops technologies for commercial application and is able to provide industry with turnkey, state-of-the-art solutions for all combustion-related environmental engineering needs.

Product/Service	Description
Advanced Utilization	Testing of solvent-refined coal; assessment of clean coal use in stationary and mobile engines; testing of coal-oil mixtures in boilers; fuel staging research; assessment of coal-oil mixtures as light-off fuel; hot gas cleaning technology for coal-fired, pressurized, fluidized bed combustors.
Architecture/Engineering	Prototype design, fabricate and install coal combustion research furnaces. Design, fabricate and install pilot coal gasifiers, and fluidized bed combustors.
Boiler Equipment	Low SO_2 and low NO_x combustion control technology; boiler modification/engineering; test coal additives to alter flyash characteristics; co-firing of hazardous waste in boilers; perform risk assessment of controlling NO_x emission from coal utility boilers.
Coal Derivatives	Clean coal use in stationary and mobile engines; demonstrate coal-oil mixture prep plant.
Facility Construction	Construction management; install coal combustion furnace; install pilot coal gasifier; supply anthracite gasifier.
Facility Operation	Operation of coal burning plants/equipment; O&M of fluidized bed combustor.

AEP Energy Services, Inc.
1 Riverside Plaza
Columbus, OH 43215

Telephone: (614) 223-1000
Telex: 810 482 1627
Fax: (614) 223-1822/1823
Chief Executive Officer: W. S. White, Jr., Chairman
International Sales Manager: Donald A. Dick, Vice President & Managing Director

AEP Energy Services, Inc. (AEPES) is a wholly owned subsidiary of American Electric Power Company, Inc. (AEP), one of the largest electric utility holding companies in the U.S. For more than eighty years, AEP has planned, engineered, designed and constructed the most highly integrated and interconnected system in the world. Today the AEP System consists of over 23,000 MW of generating capacity, over 2,000 miles of 765 kV transmission line and over 100,000 miles of distribution line to provide reliable power to over 2.6 million customers. AEP is one of the largest users of coal in the U.S. and we mine over 11 million tons of coal annually from our four subsidiary mining divisions. Our expertise in utility operations and mining extends from longwall mining and the largest capacity coal washing plant in the U.S. to advanced research in coal utilization through the construction of a 70 MW, $185 million pressurized fluidized bed combustion (PFBC) demonstration plant scheduled for operation in 1990. AEPES was established to offer the experience and expertise of AEP and its subsidiaries to foreign and domestic organizations, public and private companies, and government agencies.

Product/Service	Description
Architect/Engineering Services	Power plant, T&D, substation, environmental and mining engineering/consulting; advanced coal utilization technology; testing and training.

B. L. Montague Company, Inc.
P. O. Box 5428
Greenville, SC 29606

Telephone: (803) 242-6221
Telex: 570315
Fax: (803) 232-3630
Chief Executive Officer: Bert L. Montague II
International Sales Manager: Richard M. Sickinger
Domestic Offices: GREENVILLE, SC: 303 N. Pleasantburg Drive, Greenville, SC 29607 TEL. (803) 242-6221; SUMTER, SC: 303 East Liberty Street, Sumter, SC 29150 TEL. (803) 775-1102

B. L. Montague Company was founded in 1914 as a provider of equipment and services to the sawmill industry. Since that time B. L. Montague has evolved into a major provider of bulk materials handling systems to the industrial, mining, utility and pulp & paper industries. The company designs, engineers, fabricates (from its own 375,000 sq. ft. fabrication facility) and installs/erects the systems it provides. The company is highly rated by Dun and Bradstreet and has provided single systems valued at $40,000,000.

Product/Service	Description
Architecture/Engineering	Design, engineering and detailing of bulk materials handling systems for industrial, mining, utility and pulp & paper industries.
Coal Exporters	Design, engineer, fabricate and install conveying systems for load out onto barges/ships.
Coal Mining	Design, engineer, fabricate and install conveying systems from mine mouth to load out.
Coal Transport	Design, engineer, fabricate, and install conveying systems.
Facility Construction	Installation/erection of coal conveying systems at mines, coal terminals, industrial or power plant sites.

Baker/TSA, Inc.
Airport Office Park, Bldg. 3
420 Rouser Road
Coraoplis, PA 15108

Telephone: (412) 269-6000, (800) 553-1153
Fax: (412) 269-6097
Chief Executive Officer: C. J. Touhill, P.E., Ph.D., President
International Sales Manager: J. D. Whiteford
Domestic Offices: JACKSON, MS: 3957 Northview Dr., Jackson, MS 39206 TEL. (601) 987-4406; MERRILLVILLE, IN: 701 East 83rd Ave., Merrillville, IN 46410 TEL. (219) 736-0263, FAX (219) 755-0233; PRINCETON, NJ: Princeton Commerce Center, Building C, 29 Emmons Dr., Princeton, NJ 08540 TEL. (609) 987-6900, FAX (609) 243-0558; WESTBORO, MA: Weston Geophysical Corporation, Lyons Street, P.O. Box 550, Westboro, MA 01581 TEL. (508) 366-9191, FAX (508) 366-9197
International Offices: Please contact company headquarters for further information.

Baker/TSA's staff of over 175 include the disciplines of environmental, chemical, geotechnical, civil, and mechanical engineering; biology, ecology, and toxicology; industrial hygiene; chemistry and geochemistry; geology and hydrology. This highly trained staff works together to provide integrated solutions for addressing clients' needs in a responsive and cost-effective manner. Baker/TSA provides coal industry clients comprehensive water, wastewater, and solid waste management engineering services. Baker/TSA has experience in management of coal cleaning and coal combustion wastes including waste characterization, handling, conditioning, disposal, and utilization as well as experience in treatment of acidic wastewaters and contaminated groundwaters. The Coraopolis, Pennsylvania headquarters office, adjacent to the Greater Pittsburgh International Airport, is the technical and administrative resource base.

Product/Service	Description
Waste Utilization Assessments	Baker/TSA performs utilization assessments to identify potential waste utilization applications. Capability and experience include literature based evaluations of technical and economic feasibility and marketability, waste characterization analyses, laboratory and/or field scale demonstration testing, and local market definition.
Architecture/Engineering Waste Disposal Facility Design	Baker/TSA provides comprehensive civil, geotechnical and environmental engineering services for disposal facility development and design including: site selection studies, surveying, conceptual design, final design plans and specifications, preparation of permit applications, and onsite construction management.
Water/Wastewater Treatment Engineering	Baker/TSA engineers have extensive experience with physical, chemical, and biological treatment processes related to process water pretreatment, process water treatment, leachate and contaminated groundwater treatment, and process water recycle/reuse. Engineering capabilities include conceptual design, treatability and/or pilot plant studies, final system design, preparation of permit applications, and construction management.

Black & Veatch, Engineers-Architects
1500 Meadow Lake Parkway
Kansas City, MO 64114

Telephone: (913) 339-2000
Telex: 42-6263
Fax: (913) 339-2934
Chief Executive Officer: John H. Robinson, Managing Partner
International Sales Manager: Gary F. Prendergast, International Partner
Stanley Krug, V.P. of Marketing
Domestic Offices: Over 25 offices located in the United States including those in Chicago, Los Angeles, Philadelphia, San Francisco, and Washington, DC.
International Offices: EGYPT: Cairo; SAUDI ARABIA: Dhahran; THAILAND: Bangkok; and COLUMBIA: Bogota

Black & Veatch, Engineers-Architects is today among the 10 largest engineering firms in the United States, and is one of the oldest and most experienced. The firm is a partnership with headquarters in Kansas City, Missouri, and offices in more than 25 other cities around the world. Black & Veatch is directed by a managing partner and six executive partners. The firm engages in engineering, design, procurement, and field management and does not engage in manufacturing or construction. All major engineering disciplines are represented. More than 50 percent of the 3,000 employees have college degrees. These include professional civil, electrical, mechanical, nuclear, chemical, sanitary, architectural, and structural engineers. Associated with them are architects, planners, economic and financial specialists, hydrologists, chemists, biologists, meteorologists, lawyers, physicists, skilled technicians, and administrative personnel.

(Continued on next page)

Black & Veatch, Engineers-Architects (Continued)

Product/Service	Description
Engineering Services for Fossil Power Plants	The firm engages in engineering services for the generation, transmission, and distribution of electric power; collection, treatment, and disposal of wastewater.
Coal Handling Systems	Black & Veatch designs the bituminous, subbituminous and lignite terminating and handling facilities which are integral to coal fueled power plants. These facilities include systems for unloading (ocean-going ships, barges, railcars and on/off-highway trucks), storing, reclaiming, crushing, and weighing of coal to annual throughput capacities in excess of 9 million tons per year.
Coal Quality Analysis	The Utilization Cost Program (UCP) is a rapid evaluation tool developed by Black & Veatch that takes you from coal quality data to total busbar costs on both new and existing units. It provides the capability to determine the impact of coal quality on unit design, unit performance, capital costs, and operating costs.
Port Facilities	The complete design of dock and cargo handling facilities has been accomplished by Black & Veatch in connection with a number of projects. These design engagements have included facilities for the unloading, storage, and loading of various fuels and general cargo as well as ancillary facilities including railroad sidings, warehousing, and bulk storage.

Brown and Root, Inc.
4100 Clinton Dr.
Houston, TX 70020-6299

Brown&Root, Inc.

Telephone: (713) 676-3011
Telex: (713) 676-4109
Fax: (713) 676-4191
Chief Executive Officer: T. Louis Austin
International Sales Manager: T. Smith, III
Domestic Offices: MOBILE, AL; LONG BEACH, CA; SAN RAMON, CA; WASHINGTON, DC
International Offices: ENGLAND; MEXICO; VENEZUELA; BRAZIL; AUSTRALIA; THE NETHERLANDS; NORWAY; PHILIPPINES; CHINA; EGYPT; CANADA; INDONESIA; JAPAN; SINGAPORE; MALAYSIA; SAUDI ARABIA; SCOTLAND; BAHRAIN; U.A.E.

Brown & Root and its associated companies form one of the world's largest and most diversified groups of engineering and construction companies. Brown & Root, Inc. was formed in 1914 and has been a wholly-owned subsidiary of the Halliburton Company since 1962. Our growth record is a direct reflection of the reputation we have earned as a leader in the industry, being ranked No. 1 five times and No. 2 five times by Engineering News Record. Our philosophy of work is summarized by the words: Quality, Cost and Schedule. Brown & Root offers a total range of services from preliminary studies, process selection, procurement, construction and operational maintenance and also provides management counseling and guidance in technical, financial, legal and general business matters.

Product/Service	Description
Power Plants	Complete range of services required for design and construction of power plants, including coal fired plants, combustion turbines, diesel generators, oil and gas fired plants, nuclear and cogeneration. Engineered and/or constructed in excess of 10,000 MWe of fossil fired plants.
Mining	Complete range of services required for design and construction of mining facilities including solution mining, underground, and surface mining.

Burns & McDonnell
4800 E. 63rd Street
Kansas City, MO 64130

EMPLOYEE - OWNED
Burns & McDonnell
ENGINEERS - ARCHITECTS - CONSULTANTS

Telephone: (816) 333-4375
Telex: (910) 771-3059 BURNS MCDKSC
Fax: (816) 333-3690
Chief Executive Officer: Newton A. Campbell
International Sales Manager: Larry Thies
Domestic Offices: ST. LOUIS, MO: 10795 Watson Road, St. Louis, MO 63127 TEL. (314) 821-9016; OVERLAND PARK, KS: 10890 Benson Drive, Overland Park, KS 66225 TEL. (913) 451-8008; MIAMI, FL: 4950 S.W. 72nd Avenue, Suite 108, Miami, FL 33155 TEL. (305) 661-1527; WEST PALM BEACH, FL: 5725 Corporate Way, Suite 208, West Palm Beach, FL 33407 TEL. (407) 686-0207; DENVER, CO: 8055 E. Tufts Avenue, Suite 330, Denver, CO 80237 TEL. (303) 721-9292; PUEBLO, CO: 222 S. Union Avenue, Suite 201, Pueblo, CO 81003 TEL. (719) 545-3535; DALLAS, TX: 18333 Preston Road, Suite 460, Dallas, TX 75252 TEL. (214) 248-9570

Founded in 1898, Burns & McDonnell is a full-service architectural/engineering firm. Employee-owned since January 1986, Burns & McDonnell is a leader in electric power design, and has provided comprehensive engineering for coal-fired units ranging in size up to 670 megawatts. The firm has also engineered more than 35 fluidized-bed boiler installations. Burns & McDonnell has designed and specified air pollution control systems for utility and industrial clients since the early 1950s. Expertise includes writing equipment specifications, detail process design, construction and start-up services, and emission compliance and performance testing.

Product/Service	Description
Architecture/Engineering	Burns & McDonnell's involvement in electric power generation began in 1900 with the design of a coal-fired electric power plant. The firm's experience includes a wide range of unit sizes and plant features, including wet and dry FGD systems, electrostatic precipitators and baghouses. Burns & McDonnell also has experience with a variety of coals. Each power plant is designed to include the features needed to meet siting, operational, environmental and other requirements.

Chas. T. Main, Inc.
Prudential Center
Boston, MA 02199

MAIN
1893

Telephone: 617-262-3200
Telex: 4430035
Fax: 617-859-2575/2576
Chief Executive Officer: J. T. Callahan
International Sales Manager: B. Yamin-Afshar
Domestic Offices: PASADENA, CA: L.J. Pieroni, Ralph M. Parsons, 100 West Walnut Street, Pasadena, CA 91124 TEL. (818) 440-2000
International Offices: Please contact company headquarters for further information.

Chas. T. Main, Inc., is a wholly-owned subsidiary of The Parsons Corporation, Pasadena, California. Headquartered in Boston, MA. Main offers full range architectural, engineering, environmental, air science, and construction management capabilities to industries, utilities, institutions, and government agencies throughout the world.

Product/Service	Description
Architecture/Engineering	Provides complete project services in the following major fields: hydroelectric power generation and water resources development; thermal power generation; power delivery and distribution; energy planning; pulp, paper and forest industries; industrial process and manufacturing facilities; environmental and resource planning.
Technical Services	

CLI Corporation
430 Park West One
Pittsburgh, PA 15275

CLI CORPORATION
Engineers and Contractors

Telephone: (412) 788-6688
Telex: 510-100-7619
Fax: (412) 788-6690
Chief Executive Officer: David G. Chedgy
International Sales Manager: David G. Chedgy
International Offices: Please contact company headquarters for further information.

CLI Corporation is a major design and construction company in the coal and mineral industry. The Corporation specializes in feasibility studies, definite estimates, engineering and turnkey construction for coal preparation and other mineral processing plants and the associate material handling systems. The Company also produces specialty equipment related to the processing industry. A subsidiary company is also involved in contract operations of mining facilities. The company has internationally recognized coal and mineral processing specialists and a full complement of professional engineers and construction specialists.

Product/Service	Designation	Description
Architecture/Engineering	CLI-1	Conceptual, preliminary and actual design of coal and mineral process plants and material handling system including conveying, crushing, blending and storage.
Coal Mining	CLI-2	Contract operations of mines and processing plants including owner/operator contracts. Major coal processing of contracts of 1200 tph presently under contract.
Facility Construction	CLI-3	Construction of turnkey or negotiated process plants and material handling facilities.
Advanced Utilization	CLI-4	Producer of ultra-low ash and sulfur coal and coal-water-slurries (CWS).

Dorgan Associates, Inc.
5610 Medical Circle, Suite 31
Madison, WI 53719-1227

DORGAN ASSOCIATES, INC.
CONSULTING ENGINEERS AND SCIENTISTS

Telephone: (608) 273-0044
Fax: (603) 273-0614
Chief Executive Officer: Charles E. Dorgan, P.E., Ph.D.
International Sales Manager: Eric T. Truelove, P.E.

Dorgan Associates is a consulting engineering firm specializing in energy use, storage, and production technologies. Past and present customers include the Electric Power Research Institute (EPRI), major utilities throughout the United States, government agencies, engineering firms, and manufacturers.

Product/Service	Description
Advanced Utilization	Perform studies and evaluations for HVAC, thermal storage, cogeneration, heat pump, and industrial process heat applications.
Architecture/Engineering	Provide engineering consultation for energy use, storage, and production technologies.
Facility Construction	Perform studies and evaluations for HVAC, thermal storage, cogeneration, heat pump, and industrial process heat applications.
Facility Operation	Perform studies and evaluations for HVAC, thermal storage, cogeneration, heat pump, and industrial process heat applications.

Energy Systems Associates
15991 Red Hill Avenue, Suite 110
Tustin, CA 92680

Telephone: (714) 259-9520
Fax: (714) 259-0372
Chief Executive Officer: Bernard P. Breen
International Sales Manager: John H. Pohl
Domestic Offices: PITTSBURGH, PA: 1840 Gateway Three, Pittsburgh, PA 15222 TEL. (412) 392-2390; LAGUNA HILLS, CA: 24422 Avenita de la Carlota, Suite 290, Laguna Hills, CA 92653 TEL. (714) 770-0802
International Offices: AUSTRALIA: Lindsay Juniper, 41 Hilda Street, Corina, Queensland 4075 TEL. 61-07-379-2718

Energy Systems Associates (ESA) is an engineering consulting and construction firm. ESA provides expert services to the fuel, utility and industrial process industries. The services provided include: measurement of emission and performance evaluation of fuel properties and the effect of these properties on performance, control of pollutant emissions and modification and construction of combustion and boiler systems. ESA services have been provided to Australia, Brazil, Canada, Finland, Republic of Korea and Taiwan (R.O.C.).

Product/Service	Description
Measurements	ESA makes field measurements of all gases, including boiler profiles, solids, temperatures, heat fluxes, velocities, deposits which affect combustor performance and pollutant emissions.
Fuels Evaluation	ESA evaluates the properties of fuels and predicts and controls boiler performance for coal transport and storage, coal grinding, flame stability, slagging, fouling, burnout corrosion, erosion, ESP and baghouse performance, and emission of pollutants.
Emission Control	ESA designs, modifies and installs equipment to meet emission control limits.
Modification and Construction	ESA designs, modifies and constructs combustion equipment to meet performance and emission goals.

Fluor Daniel
3333 Michelson Drive
Irvine, CA 92730

FLUOR DANIEL

Telephone: (714) 975-2000
Telex: 68-1441
Fax: (714) 975-5981/ 5963
Chief Executive Officer: Vincent L. Kontny
International Sales Manager: Charles P. Pringle
Domestic Offices: CHICAGO, IL: TEL. (312) 368-3500; GREENVILLE, SC: TEL. (803) 298-2500; HOUSTON, TX: TEL. (713) 263-1000; PHILADELPHIA, PA: TEL. (609) 985-1101; RICHMOND, VA: A. T. Massey Coal Company, Inc. TEL. (804) 788-1800
International Offices: SAUDIA ARABIA: Fluor Arabia, Dhahran TEL. (966) 3-857-8577; AUSTRALIA: Fluor Daniel Australia, Melbourne TEL. (61) 03-520-4444; CANADA: Fluor Daniel Canada, Calgary TEL. (010) 403-259-1110; THE NETHERLANDS: Fluor Daniel BV Netherlands, Haarlem TEL. (31) 23-33-51-500; WEST GERMANY: Fluor Daniel GmbH, Dusseldorf TEL. (49) 211-4551-1; ENGLAND: Fluor Daniel, Ltd., London TEL. 44-1-222-7717

Fluor Daniel, with over $12 billion in backlog, is organized to provide a broad range of services to clients in five business sectors: Industrial, Process, Power, Hydrocarbon and Government. Services include feasibility studies, conceptual design, project management, engineering, construction, procurement, technical services, project financing, maintenance and plant operations. Fluor Daniel provides global capability from over 50 offices located around the world. Our affiliate, A. T. Massey Coal Company, produces both high-quality, low-sulfur steam coal and metallurgical coal and ranks among the 10 largest coal companies in the United States. In addition to sales of produced coal, Massey also markets coal for independent producers.

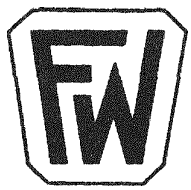
Product/Service	Description
Architectural/Engineering	Fluor Daniel, who is currently rated #1 among the top 400 U.S. Construction Companies by Engineering News Record, provides a complete range of engineering services utilizing 2D and 3D plant design systems. These services include a Project Management capability which is supported by a wide range of engineering project control systems.

(Continued on next page)

Fluor Daniel (Continued)

Facility Constructability/ Maintainability	Constructability/Maintainability is the infusion of Fluor Daniel experience with engineering technology to provide good designs balanced against project cost and schedule goals. Fluor Daniel is the U.S. leader in on-the-job safety in major construction and maintenance projects--where work is performed at an average of 1200 sites per year.
Financing	Fluor Daniel is exposed to a broad range of financing structures that can be tailored to suit a client's requirements. Assistance is then provided in securing the necessary financial commitments.

Foster Wheeler Corporation
Perryville Corporate Park
Clinton, NJ 08809-4000



Telephone: (201) 730-4000
Fax: (201) 730-4360
Chief Executive Officer: L. E. Azzato
International Sales Managers: B. P. Stephan, I. G. Lutes
Domestic Offices: ATLANTA, GA; BOSTON, MA; CHARLOTTE, NC; CHICAGO, IL; DENVER, CO; HOUSTON, TX; KANSAS CITY, MO; LOS ANGELES, CA; NEW ORLEANS, LA; NEW YORK, NY; PHILADELPHIA, PA; PITTSBURGH, PA; WASHINGTON, DC; AND WINTER PARK, FL
International Offices: AUSTRALIA: TELEX 152838 REWOP AA; CANADA: TELEX 055-60042; CHINA: TELEX 210396 REWOP CN; COLUMBIA: TELEX 396-43254 REWOP CO; ENGLAND: TELEX 851-263984; FRANCE: TELEX 842-210 782; HONG KONG: TELEX 37512 FWAL HX; ITALY: TELEX 843-310548; JAPAN: TELEX 2323192; NETHERLANDS: TELEX 844-34264; NIGERIA: TELEX 22365 FOSWLD NG; SINGAPORE: TELEX RS 39292 FWINTL; SPAIN: TELEX 83122275; contact the main office for further information.

Foster Wheeler Corporation is an engineering, manufacturing, construction, real estate development and service organization with 23 subsidiaries operating worldwide. Founded in 1927, it is currently one of the world's largest engineering and construction organizations. International activities are conducted by affiliates in England, France, Italy, Spain, and Canada. U.S. based industrial subsidiaries supply diversified engineering technologies and allied equipment. Foster Wheeler Energy Corporation, a major United States subsidiary, designs, fabricates, maintains, manufactures, and constructs steam generating equipment for electric utilities and industry. This Foster Wheeler subsidiary furnishes condensers, feedwater heaters, and other major auxiliary equipment for coal, oil, and gas-fired Coal installations in the United States and abroad. Foster Wheeler's application of alternate energy sources have Facility advanced the state of the art. Current projects involve refuse-to-energy plants, the cogeneration of industrial steam and electric power, a proprietary sludge drying process and high technology heat recovery equipment.

Product/Service	Description
Advanced Utilization	Foster Wheeler Development Corp., Livingston, NJ (201) 535-2300
Architecture/Engineering	Foster Wheeler USA Corp., Clinton, NJ (201) 735-4770
Equipment	Foster Wheeler Energy Corp., Clinton, NJ (201) 730-4310
Derivatives	Foster Wheeler USA Corp., Clinton, NJ (201) 735-4606
Construction	Foster Wheeler Constructor, Clinton, NJ (201) 735-5076
Facility Operation	Foster Wheeler Management Operations, Ltd., Houston, TX (713) 872-6911
Financing	Foster Wheeler Power Systems, Clinton, NJ (201) 730-4000

GAI Consultants
570 Beatty Road
Monroeville, PA 15146



Telephone: (412) 856-6400
Fax: (412) 856-4970
Chief Executive Officer: Anthony M. DiGioia, Jr.
International Sales Manager: Anthony M. DiGioia, Jr.
Domestic Offices: CHARLESTON, WV: 4715-C MacCorkle Avenue SE, Charleston, WV 25304 TEL. (304) 925-7730; RALEIGH, NC: 401 Glenwood Avenue, Raleigh, NC 27603 TEL. (919) 828-0801; ORLANDO, FL: 1833 Edgewater Drive, Orlando, FL 32804 TEL. (407) 423-8398
International Offices: Please contact Monroeville office for further information.

GAI Consultants has been providing engineering services to the mining industry since 1958. GAI's staff of specialists includes mining and civil engineers, geologists, hydrogeologists, archaeologists, and agronomists. This multidisciplinary team of engineers, scientists, planners, and environmental specialists assists mining companies in projects ranging from exploration, siting and permitting through mine planning and engineering to treatment of coal combustion waste. GAI's scope of work may range from short-term consultation to total project design. Geographically, GAI is well positioned for the coal mining industry. Our offices are located in Monroeville, Pennsylvania; Charleston, West Virginia; Raleigh, North Carolina; and Orlando, Florida.

Product/Service	Description
Mine Planning and Design	GAI provides full design and planning services for new or expanding mines including drilling, geophysical testing, feasibility studies, mine layouts, and selection of mining methods and mine access. GAI also provides assistance in planning and siting auxiliary mine facilities as well as beneficiation and coal gasification facilities.
Waste Disposal and Land Reclamation	Waste disposal and land reclamation services at GAI range from overall engineering design and materials handling procedures to environmental studies and ground water investigations. GAI provides services for dry refuse disposal areas as well as slurry impoundments; treatment of acid mine drainage; design of waste disposal dams and ponds; and regrading, revegetation, and reclamation planning.
Environmental and Subsidence Engineering	Environmental services provided by GAI include pollution abatement, reclamation planning, environmental impact statements, waste disposal and permitting studies, ground water monitoring, and acid mine drainage studies. Subsidence-related services include subsidence plans, mine and surface stabilization, prediction of subsidence and ground movement, subsidence investigation and control plans, and design of subsidence-resistant structures.

Gilbert/Commonwealth, Inc.
P.O. Box 1498
Reading, PA 19603-1498

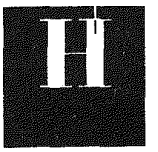


Telephone: (215) 775-2600
Telex: 836-431
Fax: (215) 775-2670
Chief Executive Officer: Charles D. Williams
International Sales Manager: Peter A. Hegedus
International Offices: ZIMBABWE: Peter Cochrane, Gilbert Ltd., 3rd Floor, Zambia House, Corner Julius Nyerere & Union Ave., Harare TEL. 263-4 791108, TELEX 6125 BICON ZW; ENGLAND: Keith Millard Gilbert Associates Ltd., Fraser House, London Road, Twickenham, Middlesex, TWI-3ST TEL. 44 1891-4383, TELEX 266-951 GILBT G; ENGLAND: R. Bruce Wilson, Halcrow Gilbert Associates, Ltd., Burderop Park, Swindon, Wiltshire SN4 0QD TEL. 44 79 381-2479, TELEX 44844 HALWIL G; AUSTRALIA: Geoff W. Spencer, Gilbert-CMPS Engineers, 685 Burke Road, Camberwell, Victoria 3124 TEL. 61-3 811-8800, TELEX AA31268 CMPSM; EGYPT: John M. Coffen, Gilbert Associates SAE, 12 Sebaweeh el Masri Street, Nasr City, Cairo TEL. 20 2 601-123, TELEX 21157 GAMEL; SAUDI ARABIA: Gilbert-ACES, c/o Arabian Consulting Engineering Services (ACES), P.O. Box 146, Riyadh TEL. 966 1 464-3528 TELEX 400763 ACES SJ

Gilbert/Commonwealth (G/C) provides consulting engineering and allied capabilities to a wide variety of industrial, utility, and governmental clients around the world. Our extensive experience with fossil fuels and fossil fueled power plants encompasses the full range of consulting engineering services, including feasibility studies, engineering analyses, trade-off studies, independent engineers reports, conceptual and final design, cost estimates, planning and scheduling, specifications, quality assurance, construction management, and startup and test. Gilbert/Commonwealth's commitment to and experience with advanced energy technologies is well known, with many assignments for industry and government agencies, including the design and operation of the High Sulphur Center for the Electric Power Research Institute. Further, G/C's engineering and applications experience with acid rain and greenhouse effect problems has put the company at the leading edge of research on these important issues. Gilbert/Commonwealth has been the prime contractor on several Department of Energy advanced energy projects which focused on technologies such as duct injection, fluidized bed combustion, gas stream clean-up, and magnethohydrodynamics. G/C is one of the operators of DOE's Pittsburgh Energy Technology Center and is the A/E services contractor for DOE's Morgantown Energy Technology Center, both of which are coal research facilities.

Product/Service	Description
Architecture/Engineering	Complete consulting engineering services, including feasibility studies, engineering analyses, trade-off studies, independent engineers reports, conceptual and final design, cost estimates, planning and scheduling, specifications, quality assurance, construction management, startup and test.

Harris Group Inc.
P.O. Box 3855
Seattle, WA 98124



Harris Group Inc.

Telephone: (206) 382-7410
Telex: 15-2917
Fax: (206) 382-9645
Chief Executive Officer: Robert M. Harris, Chairman
International Sales Manager: John D. Logsdon
Domestic Offices: PORTLAND, OR: 1750 N.W. Front Avenue, Portland, OR 97209 TEL. (503) 228-7200; BELLINGHAM, WA: 1111 Cornwall Avenue, Bellingham, WA 98225 TEL. (206) 734-4944; APPLETON, WI: 4321 W. College Avenue, Appleton, WI 54914 TEL. (414) 749-4600
International Offices: CANADA: Fourth Floor, 233 West 1st Street, North Vancouver, B.C. V7M 1B3 TEL. (604) 985-6485

Backed by more than four decades of engineering experience, Harris Group Inc. has become widely regarded as a leader in engineering design for industrial situations. Our staff of approximately 500 includes professionals in all of the major engineering disciplines. Harris Group Inc. has the capability and capacity to handle both large and small projects from the very earliest stages through to the completion of construction. We routinely provide services for, but not limited to, the steam and metallurgical coal, cogeneration, and coal transshipment industries. Areas of expertise offered in coal handling are size reduction; screening and classification; blending and sampling; storage and reclamation; unit train and ship loading/unloading; conveying and transshipment.

Product/Service	Description
Specialized Coal Handling	Harris Group Inc. staff members have accumulated many years of experience in coal handling in the United States, Canada, and Europe. Services provided include project management, planning, engineering permitting, construction management, and startup and training assistance. Typical systems provided are: export terminals complete with dock facilities; automated stacking and reclaiming; shiploading and unloading with enclosed tubular conveyor galleries; overland conveyor systems; state-of-the art transshipment facilities with totally enclosed storage and conveying; general coal handling from mine mouth to preparation plant and beyond.

Henkels & McCoy, Inc.
985 Jolly Road, P.O. Box 950
Blue Bell, PA 19422-0900



Telephone: (215) 283-7600
Fax: (215) 283-7587
Chief Executive Officer: Paul M. Henkels
Kenneth L. Rose, President
International Sales Manager: W. Bruce App, Henkels & McCoy, Inc.
Vector Communications Division, 8530 Cinderbed Road, Suite 1000, Newington, VA 22122 TEL. (703) 550-0450
Ian H. Sargent, Division Manager, Engineering Division
Domestic Offices: ORELAND, PA; RISING SUN, MD; NEW CASTEL, DE; BURLINGTON, NJ; PORTLAND, OR; YORK, PA; AURORA, CO; LEWISVILLE, TX; ELKHART, IN; OXFORD, MA; NEWINGTON, VA; RICHMOND, VA; TAMPA, FL; FONTANA, CA
International Offices: Please contact International Operations Division for further information.

Henkels & McCoy is an international engineering, construction and support services company. Services include most engineering disciplines, project support services, construction or construction management, and training. Applications include industrial and commercial facilities and transmission and distribution systems for electric power, telecommunications and data, and energy products. We provide design/build turnkey construction. We act as either prime contractor or subcontractor to manufacturers, utilities, government agencies, or other contractors. We have served client organizations in Canada, South America, Africa, the Middle East and Asia. Responsiveness, flexibility and product quality characterize our customer service philosophy. "PERFORMANCE has built our business...."

Product/Service	Description
Architecture/Engineering	Our Engineering Division is a multi-disciplined organization serving the industrial, utility, and communications markets for over 60 years. We have engineered major new plants and facilities and have rehabilitated others for a variety of applications. Each client's needs are addressed on a specific project basis. While developing the project's plans and specifications we design all pertinent systems, select appropriate equipment and incorporate operating considerations. Typical projects include the electrical, mechanical, civil/structural, and general site engineering disciplines supported by our architectural capabilities, as needed, for offices, laboratories, warehouses, etc.

(Continued on next page)

Henkels & McCoy, Inc. (Continued)

Corrosion Control	The Corrosion Control Department within the Engineering Division provides comprehensive services for underground, above ground and marine structures, tanks and pipelines. We perform corrosion surveys and stray current analysis, monitor existing systems, audit corrosion control programs, design cathodic protection systems, evaluate reinforced concrete, and evaluate/design protective coating systems.

PERFORMANCE has built our business...

Howard Needles Tammen & Bergendoff
600 - 108th Ave. N.E., Suite 405
Bellevue, WA 98004

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Telephone: (206) 455-3555
Telex: 298007 HNTB UR
Fax: (206) 453-9179
Chief Executive Officer: Hugh E. Schall, P.E.
International Sales Manager: Hugh E. Schall, P.E.
Domestic Offices: KANSAS CITY, MO: 9200 Ward Parkway, Kansas City, MO 64114 TEL. (816) 333-4800; LEXINGTON, KY: 860 Corporate Dr., Suite 200, Lexington, KY 40503 TEL. (606) 223-1591

HNTB, established in 1914, is a multidisciplinary design firm with a network of over 30 offices and over 2,000 employees throughout the United States. Organized as partnership, HNTB provides comprehensive services in architecture, engineering, and planning. HNTB currently ranks ninth among U.S. leading architectural and engineering firms according to *Building Design and Construction* magazine.

Product/Service	Description
Architecture/Engineering	HNTB offers key services to the mining industry and to government agencies involved with the reclamation of abandoned mine lands. Our services to both public and private sector clients include: Mining feasibility analysis; permitting; permit review; regulatory compliance; professional witness services; reclamation design; abandoned mine land reclamation design and construction supervision.

ICF Kaiser Engineers
1800 Harrison Street
Oakland, CA 94612

ICF KAISER ENGINEERS

Telephone: (415) 268-6000
Telex: 335326
Fax: (415) 268-5355
Chief Executive Officers: Raymond List, President
William Stitt, Chairman
Domestic Offices: PITTSBURGH, PA: Four Gateway Center, 12th Floor, Pittsburgh, PA 15222 TEL. (412) 281-8121, FAX (412) 281-8145
International Offices: AUSTRALIA: AMP Building, 140 St. George's Terrace, P.O. Box 7142 - Cloisters Square, Perth 6000 TEL. 61-9 327-5211, TELEX AA 94559; PORTUGAL: Avenida Marques de Tomar, 44-5, 1000 Lisbon TEL. 011-351-1 734074, TELEX 42656-Protec P, FAX 351-1 777-189

ICF Kaiser Engineers is an international engineering and construction firm, headquartered in Oakland, California. The company provides services to private and public sector clients involved with transportation, advanced technology, environmental, industrial and other infrastructure projects. The firm's 2500 professionals are expected to generate more than $380 million in revenues this fiscal year (ending February 28, 1990).

Product/Service

Architecture/Engineering

Facility Construction

John T. Boyd Company
400 Oliver Building
535 Smithfield Street
Pittsburgh, PA 15222

JOHN T. BOYD COMPANY

MINING AND GEOLOGICAL ENGINEERS

Telephone: (412) 562-1770
Telex: 532364
Fax: (412) 562-1953
Chief Executive Officer: James W. Boyd
International Sales Manager: Bradley Charles Lewis
Domestic Offices: DENVER, CO: Suite 1028, Lincoln Tower Building, Denver, CO 80295 TEL. (303) 861-4339, FAX (303) 861-4379

John T. Boyd Company, founded in 1943, is the largest independent consulting firm in the United States exclusively serving the world's coal and mineral industries. We provide mining engineering, environmental and financial consultation services to a diverse worldwide base. Our staff is highly respected in the industry for its expertise in all aspects of surface and underground mine planning and evaluation, marketing, transportation, environmental assessment, geology, geotechnical assessment, quality and beneficiation, financial analysis, and contract evaluation.

Product/Service	Description
Architecture/Engineering	Management and supervision of geological and exploration programs; preparation plants and material handling specifications; geotechnical studies and rock mechanics; expert witness and litigation support; fuel supply analysis
Technical Consulting	and contracts; haulage and transportation; permitting; certification of reserves; environmental impact statements; market studies and fuel economics; mine development and feasibility studies; forecast of cost, production and financial return; appraisal and evaluation of mining properties and plants.

Lane Engineering, Inc.
11739 Chanticleer Drive
Pensacola, FL 32507

LANE ENGINEERING, INC.

Telephone: (904) 492-3050
Chief Executive Officer: John W. Lane

Product/Service	Description
Architecture & Engineering	Professional engineering services.

MSE, Inc.
P. O. Box 3767
Butte, MT 59702

Telephone: (406) 494-7100
Fax: (406) 494-7230
Chief Executive Officer: Donald R. Peoples
Chief Operating Officer: John M. Sherick
Domestic Offices: BUTTE, MT: Component Development and Integration Facility (CDIF), P. O. Box 3767, Butte, MT 59702 TEL. (406) 494-7100; MultiTech Services Division, P. O. Box 4078, Butte, MT 59702 TEL. (406) 723-8213, FAX (406) 723-9377

MSE, Inc., operates the Component Development and Integration Facility (CDIF)--the largest coal-fired magnetohydrodynamic (MHD) testing facility in the world. The CDIF can also be configured to support engineering-scale development testing programs in other coal and energy technologies. MSE, Inc., provides services in process engineering, facility management and operation, plant engineering and power system design and analysis. MSE offers environmental permitting, monitoring and compliance services. MSE's EPA -- certified laboratory performs organic and inorganic analyses and offers chemical consulting and problem solving services.

Product/Service	Description
Coal Research and Development	Research and development in magnetohydrodynamics (MHD), coal handling and processing, high temperature combustion, and experimental hardware assembly and testing. Full analytical and date services are available.
Engineering Services	Facility and process design and engineering for coal and fossil fuel systems and power plants, including coal handling, pulverizing, inerting and drying, combustion, and instrumentation and control.
Facility Management and Operation	Facility management, startup, and operation to ensure reliable performance in compliance with approved procedures and safety, and environmental regulations.
Laboratory Services	EPA-certified laboratory equipped to sample and perform organic and inorganic analyses on a wide range of sample types including water, soils, coal, tailing, ores, hazardous waste, and airborne pollutants.
Environmental Services	Full range of environmental services for mining, coal processing, and power industries.

The M.W. Kellogg Company
Three Greenway Plaza
Houston, TX 77046-0395



The M.W. Kellogg Company

Telephone: (713) 960-2000
Telex: 166385 MWKHOC
Fax: (713) 960-2032
Chief Executive Officer: Donald C. Vaughn, President
International Sales Manager: J. Albert Stanley, Senior Vice President of Worldwide Sales
Domestic Offices: DARIEN, CT; WASHINGTON, DC
International Offices: ENGLAND: M.W. Kellogg Limited, The M.W. Kellogg Building, Stadium Way, Wembley, Middlesex, HA9 OEE TEL. 44-1-903-8484; BRITISH WEST INDIES: Cayman Islands; ARGENTINA: Buenos Aires; SINGAPORE; PEOPLE'S REPUBLIC OF CHINA: Bejing; INDONESIA: Jakarta; MALAYSIA: Kuala Lumpur

The M.W. Kellogg Company, an international, technology-based subsidiary of Dresser Industries, Inc., is a world leader in the engineering, procurement, construction and commissioning of chemical, petrochemical, fertilizer, gas processing, refining, and computer integrated manufacturing projects. Additionally, Kellogg provides operations and maintenance capabilities. Kellogg is also on the forefront of clean fuels technology with the acquisition of the KRW coal gasification process and development of clean air technology. The company has completed more than 3,000 major projects and many smaller projects worldwide.

Product/Service	Description
Coal Gasification	Kellogg's KRW coal gasification process is capable of operating at high conversion on a wide range of coals. Feeds ranging from lignites and brown coal to high and low volatile bituminous coal have been tested in the Waltz Mill, PA pilot plant using both air and oxygen as oxidants and limestone and dolomite as in-bed sorbents for sulfur. The process can be used to produce low- or moderate-BTU gas for synthesis or for power generation. Hot gas clean-up using Zinc ferrite yields low SOx emissions, and low-BTU gas yields low NOx in combined cycle power plants.
Pressurized Circulation Fluid Bed Combustion	Kellogg's PCFBC processes pulverized coal and limestone or dolomite in a high velocity reactor, which completely combusts the coal while yielding very low SOx and NOx emissions. The pressurized flue gas is expanded to produce power in a combined cycle mode. The sorbent is fully oxidized in the reactor, eliminating subsequent treatment of the ash and spent sorbent for disposal. The technology is a low-cost alternative for cogeneration and power applications.
Flue Gas Desulfurization	Kellogg's flue desulfurization technology utilizes a limestone sorbent in a horizontal scrubber. The technology has been proven in commercial operation on large utility boilers feeding both high and low sulfur U.S. coals. The process features high sulfur removal (greater than 90%) and high calcium utilization. Magnesium or dibasic acid addition is often used to enhance the system. A special feature of the horizontal Weir scrubber is both low flue gas pressure drop and low sorbent circulation, resulting in significant operating advantages.
Design, Procurement, Construction and Plant Services	Kellogg offers EPC capabilities as well as operations and maintenance services on a worldwide basis.
Research and Development Services	Kellogg has bench-scale and pilot plant facilities for the development and testing of coal in gasification and combustion modes. Kellogg's coal lab allows the analysis of coal and ash properties. The company can also prepare design studies for a wide range of process and power applications based on the specific coal properties.

NUS Corporation
910 Clopper Rd.
Gaithersburg, MD 20877

Telephone: (301) 987-6543
Telex: 710-828-0540 (NUWASH)
Fax: (301) 258-8764
Chief Executive Officer: Charles F. Jones
International Sales Manager: John T. Stone
Domestic Offices: 25 offices within the U. S.
International Offices: JAPAN: Japan NUS Co., 7-1, Nishi-Shinjuku 2-Chome, Shinjuku-Ku, Tokyo 163 TEL. 81-3-343-1775; FEDERAL REPUBLIC OF GERMANY: NIS Nuklear-Ingenieur-Service GMBH, Donaustrabbe 23, D-6450 Hanau-1 TEL. 49-6181-10940

Headquartered in Gaithersburg, MD, NUS Corporation is an international engineering and environmental consulting firm with more than 1900 employees. NUS provides consulting, engineering, hazardous waste management, training, and laboratory services for clients whose operations impact broad energy and environmental concerns. NUS provides complete environmental services, power plant support services, comprehensive training programs for power plant operations and maintenance personnel (Spanish, Portuguese, English) and design/engineering services.

Product/Service	Description
Facility Operation	NUS provides a broad range of consulting and field support services specially designed to enhance efficiency and cost-effective operations at fossil-fueled power generating plants and related facilities. Services involve plant operations and maintenance assistance, plant information management, personnel training, plant chemistry consulting and management consulting. Specific services include: operating, maintenance administrative and test procedure development; plant operating manual development; environmental compliance manuals; systems description development; vendor information development and revision; plant startup assistance; construction management of plant modifications and backfits; maintenance management; chemistry program review; training program design; skills instruction. NUS also provides architect/engineering services for fossil plant modification and design backfit requirements.
Facility Construction	
Architecture/Engineering	

Parsons Brinckerhoff Quade & Douglas, Inc.
One Penn Plaza
New York, NY 10119

Telephone: (212) 465-5000
Telex: WU 12-5441,RCA 232117
Fax: (212) 465-5096
Chief Executive Officer: James L. Lammie
International Sales Manager: Robert Prieto
Domestic Offices: Over 40 offices in the United States and abroad. SAN FRANCISCO, CA: Mining Division Headquarters, 303 Second Street, Suite 700 North, San Francisco, CA 94107-1317 TEL. (415) 243-4600, FAX (415) 243-9501; DENVER, CO: Mining Division Branch Office, 1331 17th Street, Suite 400, Denver, CO 80202 TEL. (303) 297-0900, FAX (303) 297-0607; HOUSTON, TX: PB/KBB Subsidiary, 11767 Katy Freeway, Suite 810, Houston, TX 77079 TEL. (713) 496-5590 FAX (713) 496-5658
International Offices: AUSTRALIA: Maunsell Parsons Brinckerhoff Pty. Ltd., Suite 4, 115 Hawthorne Road, Caulfield, VIC 3161 TEL. (03) 528-1544; HONG KONG: 11/F Kornhill Metro Tower, 1 Kornhill Road, Quarry Bay TEL. 85258847488, FAX 85258855931; TAIWAN: c/o ATCI, 4/Fl., 746 Mingsheng East Road, Taipei 10580 TEL. (02) 713-7110, FAX (02) 716,2392; SINGAPORE: 585 North Bridge Road #12-04, Blanco Court, 0718 TEL. 293-777, FAX 294-3383; TURKEY: PB/TSB, Abdullah Cevder Sokak No. 33/7, Cankaya, Ankara TEL. 90-40-138-8055

104-year-old multidisciplinary consulting organization offering a wide range of planning, engineering, and construction management services to public and private clients throughout the world. Preeminent in the planning and design of transportation systems and facilities. Leaders in design and engineering of diverse underground structures and systems: tunnels for transit systems and water resource systems; nuclear waste repositories; storage of petroleum resources, natural gas, and compressed air in caverns and wells. Specialize in mine planning and design that incorporates geotechnical and environmental engineering, and project and construction management. Mine services range from technical and environmental audit to complete feasibility study, mine planning and design, detailed design of shafts and hoists, and process evaluation and facilities design.

Product/Service	Description
Design Engineering	Underground and surface mines; mine drainage treatment; mine surface facilities; preparation plant; process plant; land reclamation; electric generation facilities; railroad loading/unloading; power distribution facilities; tidewater/river/lake/dock facilities.

(Continued on next page)

Parsons Brinckerhoff Quade & Douglas, Inc. (Continued)

Consulting Services	Geological exploration; underground and surface mines; feasibility studies; port facilities; townsite planning; efficiency/productivity studies; economic evaluations; electrical generation.

Quad Three Group, Inc.
37 North Washington Street
Wilkes-Barre, PA 18701

Q3G
Quad Three Group
Incorporated

Telephone: (717) 829-4200
Fax: (717) 829-0302
Chief Executive Officer: John L. Churnetski, P.E.

Quad Three Group, Inc., located in Northeastern Pennsylvania in the center of a major anthracite coal region, is a full service architectural/engineering firm consisting of 80 professionals and providing such services as land use planning, space utilization studies, building and building systems designs, utility systems engineering, bridge and roadway design, surveying and environmental assessment, management and remediation design.

Product/Service	Description
Architecture/Engineering	The company has substantial experience in the design of coal handling systems and coal combustion projects for steam generation and steam/electric power projects, serving district heat applications and cogeneration systems. The firm uses state-of-the-art CADD systems for all work and is a leader in the A/E industry in computer applications in design and drafting. All architectural and engineering disciplines necessary for the projects undertaken are represented on staff.

Schmidt Associates, Inc.
7333 Fair Oaks Road
Cleveland, OH 44146

Schmidt associates, inc.
CONSULTING ENGINEERS

Telephone: (216) 439-7300
Fax: (216) 232-9939
Chief Executive Officer: Charles M. Schmidt
International Sales Manager: George C. Repko
International Offices: Please contact company headquarters for further information.

Schmidt Associates, Inc. is an employee-owned professional engineering corporation comprised of dedicated, experienced engineers capable of performing a wide range of engineering and consulting services. These services include mechanical, electrical, structural, and chemical abilities, with vast experience in the industrial boiler market from studies and retrofitting of all types of existing boiler installations,to the complete installation of new facilities encompassing any or all new technologies required in the industrial field today for not only technically successful operations, but also economical success as well. Schmidt Associates, Inc. has specialized in central utilities services for industrial, institutional, and governmental plants including studies, tests, application, and installation of new technologies in industry today.

Product/Service	Description
Advanced Utilization	Conducted extensive research and design work for the government on advanced coal utilization techniques for industrial boilers including coal-oil and coal-water mixtures, slagging coal combustors and fluidized bed boilers.
Architecture/Engineering	Expertise in coal utilization from conception of idea to detailed design.
Boiler Equipment	Specify appropriate equipment for clients.
Facility Construction	Detailed design of numerous coal facilities from point of coal receipt to exit of gases from stack. Conduct on-site inspection of facilities while under construction.

SSR Engineers, Inc.
2234 Lewis Avenue
P.O. Box 20876
Billings, MT 59104

Telephone: (406) 656-8100
Fax: (406) 652-2758
Chief Executive Officer: J. R. Rush, P.E.
International Sales Manager: W. F. (Bill) Hart

SSR Engineers, Inc. is a medium size consulting firm with 30 years of experience in power system design for substations, transmission, distribution, and utility system studies. In addition to planning and design, SSR Engineers offers a wide variety of testing and technical services. We provide a full range of power engineering services to over 50 utilities, many of which depend on SSR Engineers for all of their power engineering requirements.

Product/Service	Description
Electric Power System Design	Overhead/underground transmission and distribution planning and design; substation planning and design; construction management; co-generation; load management; combustion turbine/diesel generation systems; motor control centers; rate and short circuit studies.
Mechanical Design	Mechanical/electrical design for commercial and institutional buildings, high pressure steam boiler plants thermal storage, energy conservation audits, economic and feasibility studies.
Technical/Testing Services	System commissioning and equipment acceptance testing for relay and control systems, large power transformers, power factor, insulation, and high voltage cable.

Stone & Webster Engineering Corporation
245 Summer Street
Boston, MA 02210



Telephone: (617) 589-5111
Telex: W.U. 94-0001
Fax: (617) 589-2156, (617) 589-8071
Chief Executive Officer: Frank W. Ries, Chairman
International Sales Manager: Raymond F. Rugg, Director of Marketing
Domestic Offices: CHERRY HILL, NJ; CHICAGO, IL; DENVER, CO; FORT LAUDERDALE, FL; HOUSTON, TX; NEW YORK, NY; SAN FRANCISCO, CA
International Offices: ENGLAND: Milton Keynes; CANADA: Toronto; Stone & Webster also maintains offices in the following cities: Paris, Abu Dhabi, Dammam, Riyadh, Kuala Lumpur and Seoul. Please contact headquarters in Boston for further information.

Stone & Webster Engineering Corporation, which is celebrating its Centennial during 1989, is one of the world's largest engineering and construction firms. Since its founding, as a two-man consultancy in Boston, the firm has planned, engineered and provided construction and construction-management services for utilities and industrial power concerns worldwide. Have designed and/or built plants with a total capacity exceeding 50 million kilowatts, the company is considered one of the world's largest and most experienced engineer-constructors of coal power facilities. Over the years, Stone & Webster has helped many domestic and international clients develop technologies that can lead to cleaner and more efficient use of coal. For instance, in the United States the company has conceptually designed integrated gasification/combined-cycle systems for new generating stations and evaluated the use of coal liquids for existing oil-fired stations. Stone & Webster also worked on the first utility coal-gasification project in Brazil. Today, we continue to work with government agencies and private firms on new ways to clean and burn fossil fuels. Our development projects include a process that will convert a mixture of high-sulfur coal and residual crude oil into clean-burning fuel, as well as a retrofit combustor system that eliminates a variety of pollutants and a furnace injection system that removes sulfur dioxide. Listed below, are some of the areas in which Stone & Webster applies its consulting, engineering and construction expertise.

Product/Service	Description
Advanced Utilization	Coal processing systems; direct and indirect liquefaction; coal gasification combined cycle power systems; advanced power generation systems; pressurized fluidized bed technology; externally fired high temperature gas turbine combined cycle systems and direct fired dual working fluid power cycles.
Coal Industry	Coal drying technologies; surface and underground coal mining; coal handling; fuel analysis.

(Continued on next page)

Stone & Webster Engineering Corporation (Continued)

Coal Mining	Correlation and preliminary evaluation of data; mine planning and engineering design (surface and underground): pit planning and design; underground planning and design, production engineering, land reclamation. Drilling; blasting engineering and optimization; equipment selection and justification; budget review; reserve analysis; haulroad design; coal evacuation and loading design; auxiliary utility design: compressor systems, water piping systems; ventilation design; slop stability engineering; economic analysis; fatal flaw analysis; geological aspects: exploration methods and requirements, preliminary evaluations.
Coal Transport	Railroad construction, design and engineering; truck-shovel optimization; coal slurry technology.
Facility Construction	Silo design and engineering; conveyor systems; coal loadout facilities; crushing operations and design.

Tippett & Gee, Inc.
502 North Willis
Abilene, TX 79603

Tippett & Gee

Telephone: (915) 673-8291
Fax: (915) 672-5251
Chief Executive Officer: Louis S. Gee
International Sales Manager: Robert S. Gee, President

Tippett & Gee was organized in 1954 to serve the electric utility industry. The Company offers complete engineering/architectural services. The Company's specialty is the design of fossil fuel fired central power stations. The Company has dealt extensively with both steam electric and combustion turbine generation and combined cycles. The Company's designs have received national recognition for innovative features, high availability and low $/KW installed costs. Project capabilities include initial load studies, siting studies, environmental permitting, design, procurement, construction management and startup services.

Product/Service	Description
Architecture/Engineering	During the past decade Tippett & Gee has designed and placed in service three major power stations firing solid fuel. The first was a 450 MW mine mouth plant in South Texas utilizing 5000 Btu/lb lignite. This high sulfur fuel has 32% ash, a moisture content of 28% and has an extremely high slagging and fouling tendency. The second plant was a 450 MW mine mouth plant in East Texas utilizing 4300 Btu/lb lignite. This high sulfur fuel has 28% ash, a moisture content of 35% and has an extremely high fouling potential. The Company's latest design was a 700 MW plant in North Texas utilizing western sub-bituminous coal from Exxon's Rawhide mine in Wyoming. Each of these plants had electrostatic precipitators and wet scrubbers.

Ultrasystems Engineers and Constructors Inc.
16845 Von Karman Avenue
Irvine, CA 92714

ULTRASYSTEMS ENGINEERS & CONSTRUCTORS — A HADSON COMPANY

Telephone: (714) 863-7000
Telex: 69-2356
Fax: (714) 852-8863
Chief Executive Officer: John Coyle
International Sales Manager: Joaquin Perez

Ultrasystems Engineers and Constructors Inc. (UEC) is a subsidiary of Hadson Power Systems. UEC provides engineering, construction, and turnkey services for a wide range of power and energy projects. Coal, gas and biomass fueled power plants in the range of 1-150 MWe have been successfully completed. UEC also offers several proprietary process technologies in coal and gas treatment. The Power Systems Group is adept and willing to participate in projects from initial development to turnkey engineering and construction through operation.

Product/Service	Description
Coal Coking	Mansfield Carbon Products coal coking and gasification units utilize simple traveling grate stoker furnaces to produce chemical quality coke and gas in a continuous process. Combined heat recovery units can provide economical process steam for a variety of applications.
Gas Desulfurization	The Hiperion gas desulfurization process utilizes a low energy catalyst to remove hydrogen sulfide from waste gas streams. The sulfur produced can then be converted into a chemical grade sulfur product with a small additional capital investment.

(Continued on next page)

Ultrasystems Engineers and Constructors Inc. (Continued)

Gas Reforming	The Rentec process reforms waste gas streams to create low ash diesel fuels while eliminating flare problems. Even recovery of landfill gas streams may prove economical utilizing this process.
Engineering	A full range of engineering services is available including civil, structural, mechanical, instrumentation and electrical specialties. Complete support group services are also offered and include purchasing, expediting, scheduling and project and construction management.
Construction	Merit shop construction services are independently marketed for power and process related projects in the $1-60 million dollar range. Experienced staff construction managers and lead personnel utilize locally trained manpower for project execution.

United Engineers & Constructors Inc.
30 South 17th Street
P.O. Box 8223
Philadelphia, PA 19101

United Engineers & Constructors
A Raytheon Company

Telephone: (215) 422-4400
Telex: 83-4203
Fax: (215) 422-4648
Chief Executive Officer: Gunnar E. Sarsten
International Sales Manager: Harold H. Wilson, Jr.
Domestic Offices: BOSTON, MA: 100 Summer St., Boston, MA 02110 TEL. (617) 338-6000; CHICAGO, IL: 1430 Branding Lane, Suite 125, Downers Grove, IL 60515 TEL. (312) 515-2500; DENVER, CO: 700 S. Ash St., P.O. Box 5888, Denver, CO 80217 TEL. (303) 758-1122; PITTSBURGH, PA: Penn Center East, 600 Penn Center Blvd., Pittsburgh, PA 15235 TEL. (412) 825-4400; WINSTON-SALEM, NC: 900 NCNB Plaza 1022 W. 3rd St., Winston-Salem, NC 27101 TEL. (919) 748-0431
International Offices: ENGLAND: Badger Catalytic Ltd., C.I. Tower, St. George Square, High Street, New Malden, Surrey, KT3 4HH TEL. 1-949-0055

United Engineers & Constructors, a wholly-owned subsidiary of Raytheon Company, ranks as one of the top ten engineering, construction, and contract maintenance firms in the U.S. It was founded in 1928 and has over 5,000 employees serving a wide range of industries including power, metals, chemicals and biotechnology, electronics, aerospace, mining, petroleum and gas processing, general manufacturing and government.

Product/Service	Description
Architecture/Engineering	All phases of engineering of coal-fired power generation plants including fluid bed combustion, environmental engineering licensing, and waste management. Capabilities include feasibility studies, cost estimates, preliminary engineering, conceptual design, detailed design, and procurement.
Facility Construction	Every type of construction arrangement from direct hire to complete subcontract. We can provide all construction services including field engineering, labor relations, safety programs, quality assurance, project controls, expediting, cost management, and construction inspection.
Facility Operation	Operation and maintenance activities of fossil-fueled plants including plant life extension, modifications, retrofits, testing and startup, operator training, and energy economics.

Willbros USA, Inc.
Suite 700, 2431 East 61st Street
Tulsa, OK 74136



Telephone: (918) 748-7000
Telex: 79-6660
Fax: (918) 748-7087
Chief Executive Officer: L. J. Bump
G. L. Bracken, President
International Offices: REPUBLIC OF PANAMA: Edificio Torre Banco Germanico, 8th Floor, Panama 1 TEL. (507) 63-9282, TELEX 3380; NIGERIA: 256 Kofo Abayomi St., P.O. Box 1057, Victoria Island, Lagos, 614877 TELEX 21115; OMAN: P.O. Box 142, Muscat, Sultanate of Oman TEL. 590355, TELEX 5397; UNITED KINGDOM: Provincial House, 62-68 Eden Street, Kingston-upon-Thames, Surrey KT11EJ TEL. (01) 549-4471, TELEX 928172

Willbros USA, Inc. is a subsidiary of Willbros Group, Inc. which provides worldwide construction of pipelines and related facilities, onshore contract rotary drilling, maintenance of pipeline systems, dredging, transportation and pipe coating to the energy industry. Engineering and project management services are also provided to the energy industry, the U.S. Armed Forces and the telecommunications industry.

Product/Service	Description
Energy Transportation	Pipeline and facilities construction. Engineering and project management.

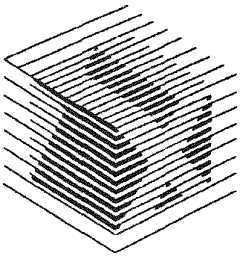
Williams Technologies, Inc.
320 South Boston, Suite 831
Tulsa, OK 74103

Telephone: (918) 582-5811
Fax: (918) 584-0474
Chief Executive Officer: David R. Williams, Jr.
International Sales Manager: H. J. Brolick
International Offices: Please contact company headquarters for further information.

Principal business is project assessment, development and management from initiation of concept through commercial implementation, including financial sourcing. Manages R&D partnership for oil and mineral technologies, R&D program for coal liquefaction technology and operation of Black Mesa coal slurry pipeline. Provides consulting with regard to economic feasibility or technical evaluation of energy or resource projects. Manages operating facilities and technology development for others. Special expertise in development of coal slurry pipeline projects through past worldwide experience and ongoing operations management of Black Mesa pipeline.

Product/Service	Description
Coal Transport	Provides development, management, financial packaging and operation management of coal slurry pipeline systems.
Architecture/Engineering	Provides consulting services in planning and feasibility study, as well as management of design, construction and operations for coal slurry pipeline and oil and gas pipeline systems. Provide similar services for cogeneration plants and alternative energy projects.
Coal Derivatives	Management services for coal liquefication and deep cleaning R&D.

Xcel Group, Inc.
1126 S. 70th Street
Suite N-206
West Allis, WI 53214



Telephone: (414) 475-4001
Telex: 269441
Fax: (414) 475-3578
Chief Executive Officer: Gerald T. Petersen
International Sales Manager: Paul S. Gurski

Process engineering firm with extensive background in coal technology process development to include the specification, design, construction, start-up and operation of coal processing equipment ranging from bench to commercial-scale facilities. In 1988, Xcel was awarded a design, supply and test NATO-funded contract in international competition for an R&D gasification facility to be located in Athens, Greece. Technical support services include feasibility assessments, U.S. souring of equipment, custom equipment design, market research and application studies. Particularly knowledgeable in U.S. utility market "clean fuel" needs and combined cycle applications. Xcel is readily accessible via the World Trade Council electronic network - address code: XCEL G.

Product/Service	Description
Technology/Evaluations	Evaluations of emerging and commercially mature technologies to include technical and economic evaluation for specific market applications.
"Clean Coal" Applications	Investigation of a specific technology or competing technologies for utility-scale or large industrial power generation applications.
Equipment Souring/Design	Identification of U.S.-based sources to meet specific processing needs or custom design and supply required equipment.
Operations Support	Start-up and operational procedures development and problem solving.

ZBA, Inc.
Engineers/Architects
23 East Seventh Street
Cincinnati, OH 45202

Telephone: (513) 421-3363
Fax: (513) 421-3363
Chief Executive Officer: Donald R. Bahnfleth, P.E.
International Sales Manager: Kevin R. Wood
Domestic Offices: IOWA CITY, IA: 123 North Linn Street, Suite 3G, Iowa City, IA 52245 TEL. (319) 337-2950; HUNTSVILLE, AL: 315 Cahill Drive, P.O. Box 804, Huntsville, AL 35804 TEL. (205) 536-1525

ZBA was organized as an engineering consultant firm in 1957 and in 1973 an architectural division was added to enable the firm to furnish complete design capabilities to serve the needs of the industrial, institutional and governmental clients. ZBA provided architectural design, mechanical engineering, electrical engineering, instrumentation and controls, computer-aided design, construction management and operator training.

Product/Service	Description
Central Heating Plants	Comprehensive Feasibility Studies; Steam Boilers and Turbine Generators; Peaking, Simple Cycle and Combined Cycle Turbines; Single and Dual Fuel Reciprocating Engines; DDC Monitoring, Control and Instrumentation; Environmental Permitting; and Particulate, SO_2 and NO_x Control Systems
Cogeneration Plants	Steam Turbines Topping Cycle, Bottoming Cycle; Reciprocating Engines Water Jacket Recovery, Exhaust Heat Receiver
Electrical Transmission Distribution	Substations to 100 MVA; Transmission to 230 kv; Planning Studies; Standards; Overhead and Underground and Distribution

Boiler Equipment: Firms providing coal and/or derivative combustion and steam generation equipment and systems.

Abresist Corporation
State Road 13 North
P.O. Box 38
Urbana, IN 46990



Telephone: (219) 774-3327
Telex: 232492
Fax: (219) 774-8188
Chief Executive Officer: Joe Accetta
International Sales Manager: Joe Accetta
Domestic Offices: FLEMINGTON, NJ: Ray Elbertson, Rd. 5, Box 120, Flemington, NJ TEL. (201) 788-6006; ISSAQUAH, WA: Owen Shea, 208 Mountain Park Blvd., Southwest E.204, Issaquah, WA TEL. (206) 392-6777; HOUSTON, TX: Wakefield Associates, 2600 Southwest Freeway, Suite 716, Houston, TX TEL. (713) 520-5083; SAN MATEO, CA: Floyd Welch & Associates, P.O. Box 5407, San Mateo, CA TEL. (415) 349-0077; DUNWOODY, GA: Davis Energy Products, P.O. Box 88448, Dunwoody, GA TEL. (404) 395-0771; PRAIRIE VILLAGE, KS: Btu Company, P.O. Box 8226, Prairie Village, KS TEL. (913) 362-8540; CINCINATI, OH: Ellman Equipment Company, 10921 Reed Hartman Highway, Cincinnati, OH TEL. (513) 984-2301.
International Offices: WEST GERMANY: Schmelzbasaltwerk Kalenborn, D-5467 Vettelschoss 2, bei Linz am Rhein, Kalenborn TEL. 2645-180.

Abresist Corporation and Schmelzbasaltwerk Kalenborn (Parent Company) specialize in the manufacture of basalt and ceramic lined pipe, fittings, cyclones, fans, hoppers and other components exposed to abrasive wear from the handling of bulk solids or slurries. These linings were pioneered by Kalenborn and have been in use for almost 70 years in every major manufacturing industry. Capabilities include design, manufacture and on site installation.

Product/Service	Designation	Description
	ABRESIST	Made from basalt rock, ABRESIST linings resist abrasive wear in coal hoppers, spirals, prep plant piping and vessels and in the bottom and fly ash systems. ABRESIST pipe is now the world standard for hydraulic ash conveyance, providing 20-40 years service.
Boiler Equipment	ALRESIST (KALOCER in Europe)	This alumina based ceramic is used where abrasive wear is combined with impact and is very popular in certain prep plant applications, pulverized fuel piping and fans, and pulverizer cones.
	SILRESIST (KALSICA in Europe)	Silicon carbide ceramic linings used in places where temperature extremes plus abrasion and impact compound the wear problems.
	KALCOR	Aluminum Corundum material with 30+% of Zircon, used in many of the same areas as ALRESIST or SILRESIST. Has more manufacturing possibilities in some cases with large or more involved pieces.
	KALEN (Not available in North America)	UHMW material used for mild abrasion & slide promotion.

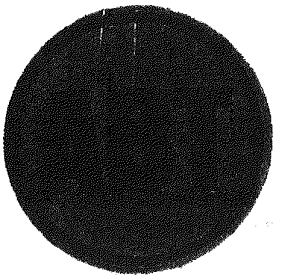


Acurex Corporation
Environmental Systems Division
485 Clyde Avenue
P.O. Box 7044
Mountain View, CA 94039

Telephone: (415) 961-5700
Telex: 325961
Fax: (415) 964-5145
Chief Operating Officer: William Dean, President
Division General Manager: William Byars, Vice President
International Sales Manager: David Delasanta
Domestic Offices: TRIANGLE PARK, NC: P.O. Box 13109, Research Triangle Park, NC 27709
International Offices: Please contact headquarters for information.

The Environmental Systems Division of Acurex Corporation provides a full range of fuel services to government and industry. These include combustion facility design, operation and maintenance; environmental engineering and pollution control; and emissions sampling and analysis. Through its research for federal and state agencies such as the Environmental Protection Agency, the Gas Research Institute, the Department of Energy, and the California Energy Commission, the division develops technologies for commercial application and is able to provide industry with turnkey, state-of-the-art solutions for all combustion-related environmental engineering needs.

Product/Service	Description
Advanced Utilization	Testing of solvent-refined coal; assessment of clean coal use in stationary and mobile engines; testing of coal-oil mixtures in boilers; fuel staging research; assessment of coal-oil mixtures as light-off fuel; hot gas cleaning technology for coal-fired, pressurized, fluidized bed combustors.
Architecture/Engineering	Prototype design, fabricate and install coal combustion research furnaces. Design, fabricate and install pilot coal gasifiers, and fluidized bed combustors.
Boiler Equipment	Low SO_2 and low NO_x combustion control technology; boiler modification/engineering; test coal additives to alter flyash characteristics; co-firing of hazardous waste in boilers; perform risk assessment of controlling NO_x emission from coal utility boilers.
Coal Derivatives	Clean coal use in stationary and mobile engines; demonstrate coal-oil mixture prep plant.
Facility Construction	Construction management; install coal combustion furnace; install pilot coal gasifier; supply anthracite gasifier.
Facility Operation	Operation of coal burning plants/equipment; O&M of fluidized bed combustor.



Allegheny Boiler Tube & Mfg. Co.
Juniper & Douglas Streets
P.O. Box 700
McKeesport, PA 15184

Telephone: (412) 751-3430
Fax: (412) 751-7527
Chief Executive Officer: John C. Baver
International Sales Manager: Fritz H. Bachman

ABT is a heavy industrial fabricator located just outside of Pittsburgh, Pennsylvania, specializing in fabrications built to A.S.M.E. code. Our field service division is a leading mechanical contractor servicing the Eastern United States.

Product/Service	Description
Boiler Components	Fabrications such as superheater and economizer elements, membrane waterwall panels, burner openings, generating tubes and dissimular dutchmen, all built to A.S.M.E. code. Emergency tube bending services offered.
Boiler Systems	Package, watertube and firetube boilers sold, bought and refurbished.
A.S.M.E. Code Fabrications	Tanks, pressure vessels and heat exchangers built and reconditioned.
Turnkey Construction Service	Complete construction management for mechanical projects ranging from equipment installation to complete boiler retrofits.

Allen-Bradley Company
Presence Sensing Products Division
Fireye Products
265 Winter Street
Waltham, MA 02154

A-B QUALITY ALLEN-BRADLEY
A ROCKWELL INTERNATIONAL COMPANY

Telephone: (617) 466-8000
Telex: 4430195ECA
Fax: (617) 890-7939
Chief Executive Officer: Keith D. Nosbusch
International Sales Manager: Tamar T. Feenstra
Domestic Offices: HIGHLAND HEIGHTS, OH: 625 Alpha Drive, Highland Heights, OH 44143 TEL. (216) 449-1500

Allen-Bradley, A Rockwell International Company, is a major manufacturer of industrial automation controls and systems including data acquisition, communications and quality management products.

Product/Service	Description
Boiler Equipment	Fireye Produces: Flame scanners - detect presence and absence of flame emanating from commercial, industrial and utility burners. Flame safeguard controls - helps prevent unburned fuel from accumulating in boiler/furnace combustion chamber in the event of flame failure through: visual indication and alarm, cut off ignition energy, de-energize fuel valves. May be used with Allen-Bradley Programmable Logic Controllers in Burner Management Systems.

Aptech Engineering Services, Inc.
1257 Elko Drive
Sunnydale, CA 94089

APTECH®
ENGINEERING SERVICES, INC.

Telephone: (408) 745-7000
Telex: 33-4959
Fax: (408) 734-0445
Chief Executive Officer: G. R. Egan
International Sales Manager: S. A. Lefton
Domestic Offices: HOUSTON, TX; ALEXANDRIA, VA

Provides consulting engineering, design and operation services to the industrial and utility power industry. We specialize in the failure analysis, maintenance and determination of remaining useful service life of boiler components including heads and tubing, piping, turbines, fans, pumps, valves, air heaters, pulverizers and structural equipment. APTECH has a complete in-house metallurgical laboratory.

Product/Service	Description
Architecture/Engineering	Design of specialized power plant retrofits and upgrades to enhance their useful service life. Assessment and studies of reliability maintenance, capacity and efficiency. Design and assessment of piping systems and pressure vessels.
Boiler Equipment	Design of replacement tubing in superheaters, reheater, waterwall tubing and headers. Assessment of root cause o failure of boiler components, condition assessment, component life assessment and life assessment services.
Turbine Equipment	Assessment of the remaining useful life of turbine components including blades, disks, cases and rotors.

Babcock & Wilcox
Power Generation Group
20 S. Van Buren Avenue
Barberton, OH 44203-0351

Babcock & Wilcox
a McDermott company

Telephone: (216) 753-4511
Telex: 986406
Fax: (216) 860-1886
Chief Executive Officer: Robert E. Howson
International Sales Manager: Ian K. Anderson
Domestic Offices: NEW ORLEANS, LA: McDermott International, 1010 Common Street, New Orleans, LA 70160
International Offices: CANADA: Babcock & Wilcox International, 581 Coronation Blvd., Cambridge, Ontario N1R 5V3

The Babcock & Wilcox Company has been a leader in coal-fired steam boilers ever since George Babcock and Stephen Wilcox were granted a patent on the safety tube boiler in 1867. Today, B&W builds coal-fired boilers with steaming capacities from 100,000 pounds per hour up to 9,300,000 pounds per hour. Reliable operation has always been a key goal. American Electric Power operated its Mountaineer power plant -- including a B&W 1300 MWe boiler -- continuously for 607 days in 1986 and 1987. Let us provide you with the same quality.

Product/Service	Description
Boilers	Conventional boilers fired by stoker or pulverized coal. Fluid bed boilers of bubbling, circulating, and pressurized design.
Burners	Conventional and low NOx.
Pulverizer Mills	Our rugged MPS model mill has been proven in over 600 units on a side variety of coals.
Environmental Control Systems	In cooperation with the Clean Coal Program of the U.S. Department of Energy, B&W has demonstrated sulfur removal in the lower furnace (fluid bed), the upper furnace (LIMB), the boiler backend (LIDS), and in the precipitator (ESOx). Consider B&W if you need a customized retrofit application to minimize sulfur.
Flue Gas Desulfurization (scrubbers)	B&W scrubbers are in operation and construction from 25 MWe to 1300 MWe, using lime, limestone, thiosorbic lime, and sodium.

Combustion Power Company, Inc.
1020 Marsh Road, Suite 100
Menlo Park, CA 94025



Telephone: (415) 324-4744
Fax: (415) 324-0788
Chief Executive Officer: Frank Walton
International Sales Manager: Don McKenzie
Domestic Offices: RIDGEWOOD, NJ: 1200 E. Ridgewood Ave., Ridgewood, NJ 07450 TEL. (201) 652-9298

Combustion Power Company was founded in 1968 to develop and commercially sell environmentally acceptable energy generation equipment. Presently Combustion Power markets a Fines Circulating Fluidized Bed system (FICIRC™) which fires solid and waste fuels to generate steam or hot air for either Rankine or Brayton cycle applications ranging from 10-100 MWe. Key to the technology is the achievement of very low emissions rates for NOx, SOx, PM and hydrocarbons. Combustion Power is also involved in the initial commercialization phases of a high temperature, high pressure granular bed filter.

Product/Service	Designation	Description
Fines Circulating Fluidized Bed Boilers	FICIRC™ Boilers	Single boiler sizes range from 100000 to 400000 pph at steam conditions up to 1000°F and 1600 psig. These systems meet the most stringent air emissions requirements in the USA - those of the Los Angeles area in California when firing petroleum coke, coals, biomass and other solid and waste fuels.
Fines Circulating Fluidized Bed Air Heaters	FICIRC™ Air Heaters	Single air heater systems for Brayton cycles range in size from 10-30 MWe at air conditions (at the outlet) of 1450°F and 600 psia. These systems meet stringent air emissions standards when firing petroleum coke, coals, biomass and other solid and waste fuels.
High Temperature, High Pressure Flue Gas Filtration	GBF	These filters clean flue gases to 10 ppm of particulate in either oxidizing or reducing flue gas atmospheres up to 20 atmospheres and 1600°F.

Compton Metals
Rt 2, Box 310
Clarksburg, WV 26301

Telephone: (304) 622-2030
Fax: (304) 622-1977
Chief Executive Officer: Gerald M. Compton
Domestic Offices: CLARKSBURG, WV: Power Marketing Associates, P.O. Box 1110, Clarksburg, WV 26301 TEL. (304) 622-9741, TELEX (304) 622-7785

Established in 1975, Compton Metals is a major supplier of boiler fabrications in North America to the Boiler OEM's, Coal Fired Utilities and Cogeneration installations. Capabilities include all aspects of fabrication. Our unique product line is boiler and condenser tube shields.

Product/Service	Description
Boiler Tube Shields	Fabricated from stainless steel or other specified heat/corrosion resistant metal. Designed to specifically reduce corrosion or erosion of boiler tubes. Customized configurations are our specialty.

Conco Systems, Inc.
135 Sylvan Street
Verona, PA 15147



CONCO

Telephone: (800) 345-3476
Telex: 866255
Fax: (412) 826-8255
Chief Executive Officer: George E. Saxon, Sr.
International Sales Manager: George Saxon, Jr.
Domestic Offices: KANSAS CITY, KS; WESTLAKE VILLAGE, CA; FORT LAUDERDALE, FL

Fully integrated firm providing absolutely the best services for proper maintenance and operation of condensers, heat exchangers, and service water systems.

Product/Service	Description
Tube Cleaning Equipment	Exclusive manufacturer of water powered tube cleaning tools for condensers and heat exchangers.
Tube Cleaning Services	Services utilizing exclusive tools.
NDT-Eddy Current Testing	Condition assessment of major cooling components.
Consulting	Preliminary opinion, root cause analysis, water treatment audits.
Failure Analysis	By nuevo laboratory techniques.
Process Modeling	Model cooling systems.

Control Components Inc.
22591 Avenida Empresa
Rancho Santa Margarita, CA 92688



Telephone: (714) 858-1877
Telex: 685500
Fax: (714) 858-1878
Chief Executive Officer: Stuart Carson
International Sales Manager: David Minoofar
Domestic Offices: HOUSTON, TX: Ronald Parker, CCI Houston, 1325 S. Creek Dr., Houston, TX 77084 TEL. (713) 492-6904, FAX (713) 492-6980, TELEX 79-2339
International Offices: ENGLAND: Colin Wright, CCI International Ltd., P.O. Box 216, Witton, Birmingham B6 7BA TEL. 44-21 356-4848, FAX 44-21 356-0251; SINGAPORE: S.K. Wong, Koson b.v. 7500A Beach Rd., #07-302, The Plaza, 0719 TEL. 65 296-2455, FAX 65-291-0763 Additional Offices and Representatives: Please contact company headquarters for further information.

Control Components Inc. was founded in 1961 to produce instrumentation valves for industry. CCI has long been recognized as a technological leader in the control valve segment of the valve industry for its development of the patented DRAG® velocity control valve for severe service applications in the power and process industries. In 1980, CCI also acquired the control valves of the renowned Bailey Controls Company. These valves are used primarily for boiler feedwater control, steam pressure reducing, heater level control, desuperheater water flow control and pump recirculation.

Product/Service	Designation	Description
Control Valves	CCI-DRAG® 100D Control Valve	For severe service applications - combats noise, erosion and cavitation by forcing process fluid to follow a tortuous path of right angle turns through trim, thus controlling damaging velocities.
	CCI-Bailey Utility Valves	D-10, B-33, E-40 and Al valves for low to moderate pressure drop liquid and steam application. The flow is controlled by the annular area of the trim or the port area of the cage.

Diamond Power Specialty Company
2600 East Main Street
Lancaster, OH 43130

Telephone: (614) 687-6500
Telex: 246635
Fax: (614) 687-4189
Chief Executive Officer: Paul E. Perrone
International Sales Manager: James E. Arens, Director of Marketing
International Offices: AUSTRALIA: Diamond Power Australia, 5 Herefort Rd., Berkeley Vale, NSW TEL. 61-43-88-4655; CANADA: Diamond Canapower, 1122 Pioneer Road, Burlington, Ontario TEL. (416) 355-0321; FINLAND: Diamond Superior OY, PL 33, 00701 Helsinki TEL. 358-0-358311; PEOPLES REPUBLIC OF CHINA: Diamond Power Hubei Machine Co., Ltd., 139 Cheng Bei Lu, Xinshi Zhen, Jingshan County, Hubei TELEX 416006 DPSHB CN; SWEDEN: Diamond Superior AB, P.O. Box 20035, S-161 02 Bromma TEL. 46-8-290440; ENGLAND: Diamond Power Specialty Ltd., Glasgow Road, Dumbarton, Scotland G82 1ES TEL. 44-389-64151; SOUTH AFRICA: Diamond Power Specialty Pty. Ltd., 8-10 Fairbanks Road, Vandervijlpark, Transvaal, RSA TEL. 016-814018/9

Diamond Power is the world's largest manufacturer of boiler cleaning systems with special emphasis on the utility, pulp and paper, process industry, industrial, cogeneration and refuse boiler markets. Diamond maintains fourteen service centers worldwide with six located in the U.S. to provide parts distribution and equipment rebuild and maintenance services for its customers. Diamond also maintains an extensive network of service engineers to provide on-site service, consultation, and supervision. The reliability of Diamond's equipment, coupled with its boiler cleaning expertise, provide its customers with a fully integrated package to assist in the efficient operation of their boilers.

Product/Service	Designation	Description
Boiler Cleaning Systems	Sootblowers	Diamond manufactures a wide range of sootblowers designed for virtually every market. Heavy duty retractable sootblowers are applied for utility type boilers up to 120 ft. wide. Heavy duty retractables resist corrosion and give maximum cleaning energy for the pulp and paper marketplace. Fixed position rotating element sootblowers provide cleaning for package and light industrial boilers.
	Controls	Diamond's complete line of sootblower controls include small relay, Microprocessor and CRT based systems. These may function as stand alone systems or they may be interfaced with the plant's Distributed Control System.
	Water Level Monitoring Systems	Diamond's boiler drum level equipment covers a full spectrum of monitoring products including port type gauges, support tubes, gauge valves, fiber optic sighting equipment, and electrode based remote level indicators (MERLI™). No matter what your needs, we have the right gauge equipment for you.
	Air Port Cleaning Systems	Diamond's port cleaning systems are specifically designed for automatic cleaning of the air ports on recovery boilers. A heavy duty air cylinder mounted to each port and operated from a programmable control system keep the ports open to improve boiler operation.
	Maintenance and Rebuild Services	Diamond provides maintenance and rebuild services at the plant site or at one of our six U.S. Service Centers. Our rebuild service ranges from component rebuild to the rebuild of entire sootblowers. All rebuild components use genuine Diamond parts and carry the same warranty as new equipment. Services include maintenance contracts as well as per diem service assistance.
Mirror Insulation		Mirror insulation is a high quality, all metal, reflective insulation made for easy removal and reinstallation. It has the capability of providing excellent thermal insulation and at the same time can be cleaned or decontaminated, if necessary, by simple wash down procedures. Mirror is made for the smallest piping right up to and including reactor vessel insulation.

FluiDyne Engineering Corporation
5900 Olson Memorial Highway
Minneapolis, MN 55422

FLUIDYNE. ENGINEERING CORPORATION

Telephone: (612) 544-2721
Telex: 290518
Fax: (612) 546-5617

Founded in 1952, FluiDyne began in-house fluidized bed combustion development work in 1971, and has designed, built and tested FBC systems which burn a wide range of fuels. These systems can produce steam, hot water or clean hot air. Cogeneration systems are also available.

Product/Service	Description
Boiler Systems	Coal and Waste Coal fired fluid bed boiler systems. Design or Design/Build.

Foster Wheeler Corporation
Perryville Corporate Park
Clinton, NJ 08809-4000

Telephone: (201) 730-4000
Fax: (201) 730-4360
Chief Executive Officer: L. E. Azzato
International Sales Managers: B. P. Stephan, I. G. Lutes
Domestic Offices: ATLANTA, GA; BOSTON, MA; CHARLOTTE, NC; CHICAGO, IL; DENVER, CO; HOUSTON, TX; KANSAS CITY, MO; LOS ANGELES, CA; NEW ORLEANS, LA; NEW YORK, NY; PHILADELPHIA, PA; PITTSBURGH, PA; WASHINGTON, DC; AND WINTER PARK, FL
International Offices: AUSTRALIA: TELEX 152838 REWOP AA; CANADA: TELEX 055-60042; CHINA: TELEX 210396 REWOP CN; COLUMBIA: TELEX 396-43254 REWOP CO; ENGLAND: TELEX 851-263984; FRANCE: TELEX 842-210 782; HONG KONG: TELEX 37512 FWAL HX; ITALY: TELEX 843-310548; JAPAN: TELEX 2323192; NETHERLANDS: TELEX 844-34264; NIGERIA: TELEX 22365 FOSWLD NG; SINGAPORE: TELEX RS 39292 FWINTL; SPAIN: TELEX 83122275; contact the main office for further information.

Foster Wheeler Corporation is an engineering, manufacturing, construction, real estate development and service organization with 23 subsidiaries operating worldwide. Founded in 1927, it is currently one of the world's largest engineering and construction organizations. International activities are conducted by affiliates in England, France, Italy, Spain, and Canada. U.S. based industrial subsidiaries supply diversified engineering technologies and allied equipment. Foster Wheeler Energy Corporation, a major United States subsidiary, designs, fabricates, maintains, manufactures, and constructs steam generating equipment for electric utilities and industry. This Foster Wheeler subsidiary furnishes condensers, feedwater heaters, and other major auxiliary equipment for coal, oil, and gas-fired installations in the United States and abroad. Foster Wheeler's application of alternate energy sources have advanced the state of the art. Current projects involve refuse-to-energy plants, the cogeneration of industrial steam and electric power, a proprietary sludge drying process and high technology heat recovery equipment.

Product/Service	Description
Advanced Utilization	Foster Wheeler Development Corp., Livingston, NJ (201) 535-2300
Architecture/Engineering (A&E)	Foster Wheeler USA Corp., Clinton, NJ (201) 735-4770
Boiler Equipment	Foster Wheeler Energy Corp., Clinton, NJ (201) 730-4310
Coal Derivatives	Foster Wheeler USA Corp., Clinton, NJ (201) 730-4606
Facility Construction	Foster Wheeler Constructors, Clinton, NJ (201) 735-5076
Facility Operation	Foster Wheeler Management Operations, Ltd., Houston, TX (713) 872-6911
Financing	Foster Wheeler Power Systems, Clinton, NJ (201) 730-4000

Fuel Tech
61 Taylor Reed Place
Stamford, CT 06906



Telephone: (203) 359-1320
Fax: (203) 359-9317
Chief Executive Officer: George F. Shulof
International Sales Manager: Eugene J. Capriotti
Domestic Offices: SANTA FE SPRINGS, CA: Mr. M. R. Mulhern, 9926 Pioneer Blvd, Santa Fe Springs, CA 90670 TEL. (213) 942-0585, FAX (213) 942-1240; SAN FRANCISCO, CA: Mr. Michael Gamburg, 750 17th Ave, Suite 102, San Francisco, CA 94121 TEL. (415) 221-6177, FAX (415) 221-6178
International Offices: ENGLAND: Mr. Jeremy Peter-Hoblyn, 28A Cadogan Square, London SW1X OJH. TEL. 1-581-2051, FAX 1-589-8108; WEST GERMANY: Mr. Joachim Von Bergmann, Frankfurter Strasse 33-35, Eschborn 6236 TEL. 49-6196-48613, FAX 49-6196-42012. JAPAN: Dr. H. Saito, Kitano Maru Residence, 3rd Floor, 2-3-9 Kudan Kita, Chiyoda-Ku, Tokyo 102

Fuel Tech is a dynamic high-technology company dedicated to the development and commercialization of new chemical and mechanical systems to reduce emissions and improve the efficiency of fossil-fueled combustion systems. Founded in Boston, Massachusetts in 1981, Fuel Tech provides a unique systems approach to the solution of air pollution problems for customers in the industrial, marine, petroleum and electric utility markets.

Product/Service	Description
Boiler Equipment Facility Operation	The NO_xOUT Process is an NO_x reduction technology for utility and industrial boilers which involves the injection of enhanced urea and other chemicals into the combustion gases of a boiler. NO_xOUT provides significant reductions over a wide range of combustor types, temperatures, and fuels. It is easily retrofitted, requires minimum space, and is estimated to cost one-fifth that of SCR.

Henry Vogt Machine Co., Inc.
P.O. Box 1918
Louisville, KY 40201



Telephone: (502) 634-1511
Telex: 204 230 VOGT LVL
Fax: (502) 637-7344
Chief Executive Officer: Henry Heuser Jr.
International Sales Managers: Dennis Hunt, Akber Pasha
Domestic Offices: LOUISVILLE, KY: 1000 West Ormsby Avenue, Louisville, KY 40210

Henry Vogt Machine Company was founded in 1880 and since then has become one of the foremost manufacturers of forged steel valves, fossil fuel fired and heat recovery boilers and commercial ice making machines. Vogt boilers are found in various utility and petrochemical plants in the U.S. Vogt, along with its licensees in the Netherlands, Japan and India have provided boilers for plants in South Korea, mainland China, Thailand, Indonesia, India, Iran, Egypt, England, the Netherlands and South America. Vogt quality is renowned throughout the world. Vogt is also involved with government and professional agencies such as California Energy Commission and Electric Power Research Institute in developing the basic design concept for new utilization or product.

Product/Service	Designation	Description
Field Erected Boilers	Class VS Boilers	Vogt stoker fired, field erected boilers range in capacity from 50,000 lbs/hr to 120,000 lbs/hr. Pressure/Temperatures range from 150 psig, sat to 750 psig, 750 F. Gas and/or Oil firing capability can be provided. Other pertinent equipment such as FD Fans, Soot Blowers, Air Heaters and Deaerators can be included. Vogt can also supervise the Erection and Commissioning of the Boilers.
Heat Recovery Boilers	Class MSG Boilers	Boilers range from 50,000 to 500,000 lbs/hr of steam with pressure/Temp. ratings from 150 psig sat. to 1600 psig, 1000°F superheat. Steam can be produced at various levels and can include Resuperheaters. Exhaust gasses from Coal Gasification processes, Coal Gas fired Gas Turbines and Fluidized Bed Combustors can also be used in the Heat Recovery Boilers.

Honeywell Incorporated
Industrial Automation Systems Division
16404 N. Black Canyon Highway
Phoenix, AZ 85023

Honeywell

Telephone: (602) 863-5000
Fax: (602) 863-5692
Chief Executive Officer: Ed Hurd
International Sales Manager: Thomas Jeffries
International Offices: HONG KONG: Asia Pacific Inc., Suite 3408, One Exchange Square, Central TEL. (85205) 8445566, TELEX 81302 HAPG HX; SINGAPORE: Southeast Asia Ltd. Head Office, 1 Maritime Square #02-70, World Trade Center 0409 TEL. (65) 278-4555, TELEX RS 34763 HNYWEL

Honeywell's Industrial Automation Systems Division, with headquarters in Phoenix, is the world's leading supplier of industrial process and control systems. Honeywell's systems are designed to increase plant productivity, improve operating efficiency and reduce energy consumption in an industrial setting. The division serves the process and manufacturing industries with emphasis on power generation, refining, bulk chemicals, oil and gas, fine chemicals, pharmaceuticals, pulp and paper, and consumer goods.

Product/Service	Designation	Description
Coal Management	TDC3000	Control system for management of coal form receipt until entry into combustion. Accounting of received coal at un-loading facilities, automatic control and accounting of storage at the stacker-reclaimer, control of tripper car feed to coal silo. Monitor and control of conveyors and emergency shutdown. Integration of weigh scales an coal analyzers.
Power Plant Coal/ Fuel System	TDC3000	Control of Coal Feed to Power Plant Boilers via mills, feeders, etc. Proportional feed vs. demand, with optimization capability. Monitor of emissions, and plant performance.
Fluidized Bed Boiler Control System	TDC3000	Control Systems for control of fluidized bed boilers. Complete boiler and turbine controls systems for power generation. Monitor of emissions and plant performance.
Coal Gasification Control Systems	TDC3000	Control of coal gasifiers, programmable for use with many processes. Complete management systems from unloader to gas out.

Kennedy Van Saun Corporation
Subsidiary of McNally, Inc.
P.O. Box 500
350 Railroad Street
Danville, PA 17821

Telephone: (717) 275-3050
Telex: 442-3060
Fax: (717) 275-6789
Chief Executive Officer: Andrew Benko
International Sales Manager: Terry J. Wilkins
Domestic Offices: Please contact company headquarters for further information.
International Offices: Please contact company headquarters for further information.

Kennedy Van Saun Corporation (KVS) is a technology organization with extensive experience and integrated skills in engineering, testing, manufacturing and project management. KVS provides systems, equipment and turnkey plants for the processing and handling of materials such as coal, lime, limestone, mineral ores, coke, magnesite, alumina, phosphate and the thermal destruction of industrial, pathological, and hazardous wastes. KVS activities are supported by an array of well known and widely used proprietary products and systems designed to meet the demands of the industries it serves.

Product/Service	Description
Coal Mining	Coal breaking, crushing, and grinding equipment and systems; hydraulic and dense media coal washing equipment and systems; centrifugal dryers for coal; sieve screens and classification equipment and systems for coal.
Boiler Equipment	

Kunkle Valve Division
Kunkle Industries Inc.
8222 Bluffton Road
P.O. Box 1740
Fort Wayne, IN 46801-1740

Telephone: (219) 747-1533
Fax: (219) 747-7958
Chief Executive Officer: W. E. Newell, President
International Sales Manager: Dan A. Simerman, Vice President, Sales

Kunkle Valve serves a variety of OEMS and users while meeting the requirements of ASME as well as critical military standards. Kunkle Valve meets today's most rigid quality requirements. We offer the end-user safe, high-performance products that feature superior engineering and rugged durability.

Product/Service	Description
Boiler Equipment	Safety valves, relief valves and safety-relief valves for long-term use in industrial steam, air and liquid applications of boilers, pumps and compressors.

Peabody Engineering Corp.
39 Maple Tree Avenue
Stamford, CT 06906

Telephone: (203) 327-7000
Telex: 96-5911 PEABODY ENG STD
Fax: (203) 978-1358
Chief Executive Officer: Frank E. Lammers
International Sales Manager: Harold Althen
International Offices: CANADA: John Leonard, Peabody Engineering Canada, 1225 Matheson Blvd., Mississauga, Ont. L4W 1Y9 TEL. (416) 625-1550, FAX (416) 625-1215; MEXICO: Raul Rodriquez, Ingenieria Peabody, Lope de Vega 117-5 Piso, DFN 11560 TEL. (525) 254-3099; ENGLAND: Keith Moss, Peabody Holmes, Brenchly House, 123/135 Week St., Maidstone, Kent ME14 1RF TEL. (062) 267-1381

Peabody Engineering products are used worldwide to satisfy combustion requirements at utilities and industrial plants. Products include several different types of burners, ignitors, flame detectors, burner management systems, and specialized combustion equipment such as air heaters. Peabody coal burners and coal preparation equipment are employed in a wide variety of applications. With more than 70 years of experience, Peabody is qualified to handle individual combustion requirements.

Product/Service	Description
Coal Burners	Peabody scroll-type tertiary solid fuel burners efficiently fire pulverized coal with low unburned carbon and particulate emissions. Burners are designed for three separate, controllable combustion air streams, have the capability of firing supplementary fuels - oil or gas - separately or simultaneously, and are available in capacities from 10-million BTU/hr and up.
Ignitors	A complete range of ignition equipment is available including electric, gas-electric, and oil-electric models.
Flame scanners	A family of flame scanning equipment is available to sense the presence and condition of coal flames. Scanners include ultraviolet and infrared models plus the new SmartScan™ microcomputer-controlled flame scanner.
Pulverizers	Coal pulverizers handle all grades for a variety of fineness, offer full control of the grinding atmosphere, and provide thorough disintegration and homogenization of pulverized material.

Pyropower Corporation
5120 Shoreham Place
San Diego, CA 92122



Telephone: (619) 458-3000
Telex: 506-170
Fax: (619) 458-9132
Chief Executive Officer: Eric J. Oakes
International Sales Manager: Callixtus J. Aulisio

Pyropower Corporation, a subsidiary of A. Ahlstrom Corporation, provides product development, engineering, design, procurement, construction, start-up, operations, and after market services for the AHLSTROM PYROFLOW circulating fluidized bed boilers. These boilers are for steam and electricity generation using solid fuel including, high moisture, high ash and high sulfur fuels in an environmentally safe manner. Successful on-schedule construction and reliable operating experience with PYROFLOW has been thoroughly demonstrated with over 75 units in commercial operation or under construction worldwide.

Product/Service	Description
Boiler Equipment	Pyropower offers complete fluidized bed boilers with auxiliary equipment plus additional balance of plant equipment.
Facility Construction	Pyropower offers complete construction of fluidized bed boilers with auxiliary equipment plus additional balance of plant equipment.
Facility Operation	Pyropower provides complete services to operate circulating fluidized bed boiler plants.
Financing	Pyropower provides full capabilities to arrange project financing for power projects.
Advanced Utilization	Pyropower is developing advanced utilization of solid fuel fired boilers such as pressurized fluidized bed boilers.

Riley Stoker Corporation
5 Neponset Street, Box 15040
Worcester, MA 01615



Telephone: (508) 852-7100
Telex: 920428
Fax: (508) 852-7548, (508) 852-7558
Chief Executive Officer: H. Kerner Smith
International Sales Manager: David A. Harris
International Offices: BELGIUM: Chaudronneries Pierre Broubon, Rue de la Station, 41 bis, 4341 AWANS TEL. (041) 63 88 20 21 22; AUSTRALIA: Clyde-Riley Dodds Pty., Ltd., 123 Gotha Street, Fortitude Valley, Queensland 4006 TEL. (07) 854 1522; FRANCE: FAMA, 8 Rue d'Athenes, 75009 Paris TEL. 42 82 93 31; JAPAN: Mitsui Engineering & Shipbuilding Co., Ltd., 6-4 Tsukiji 5-chome, Chuo-ku, Tokyo 104; COLOMBIA: Representaciones Internacionales Ltda., P. O. Box 949, Medellein TEL. 248-51-89 or 246-56-94; SWITZERLAND: Centrex S.A., 24 Avenue Dumas B P 305 1211, Geneva 25 TEL. (022) 46 82 26; EGYPT: Arab Engineering & Distribution Co., 2 Saraya El Korba Street, Garden City, P. O. Box 901, Cairo; INDIA: Ideal Enterprises, 402 Hemkunt Tower, 98 Nehru Place, Post Box 4411, New Delhi-110019 TEL. 6415435; ISRAEL: PETCO International Ltd., 55 Shderot Bialik, Ramat-Hashron TEL. (972) 3-5401812; PAKISTAN: Qamar Traders, P. O. Box 1014, Ikram Building, Outside Akbari Gate, Lahore-8 TEL. 62336 or 56936; TAIWAN: Taiwan Development Co., Ltd., 3rd Floor, 5 Tsing Tao East Road, Taipei R.O.C. TEL. (886) 2-3912366; VENEZUELA: Eduardo Calcano & Cia., C.A., Centr Plaza, Torre B-Penthouse, Avenida Francisco de Miranda, Apartado de Correos 613071 Chaca, Caracas 1060-A

Riley Stoker Corporation was founded in 1913. Since 1981 the company has been a subsidiary of Ashland Oil, Inc. Riley designs, manufactures and constructs traditionally-fired boilers, fluidized bed combustion boilers, and waste-to-energy systems in capacities from 222,675 to 2,086,188 kg/steam/hr (50,000 to 4,600,000 pounds of steam per hour).

Product/Service	Description
Boilers Stokers Pulverizers Construction	Riley manufactures a line of coal pulverizers, burners for coal, gas and oil, and stokers for all types of coal, cellulose fuels and waste. The company provides a range of services for boiler and fuel burning equipment, including inspections, repairs and maintenance. It has its own construction capabilities for complete boiler erection as well as modifications and rebuilds. Riley operates a center for fuel burning research, and a manufacturing plant in Erie, PA with easy access to water, rail truck and air shipping.

Schmidt Associates, Inc.
7333 Fair Oaks Road
Cleveland, OH 44146

chmidt associates, inc.
CONSULTING ENGINEERS

Telephone: (216) 439-7300
Fax: (216) 232-9939
Chief Executive Officer: Charles M. Schmidt
International Sales Manager: George C. Repko
International Offices: Please contact company headquarters for further information.

Schmidt Associates, Inc. is an employee-owned professional engineering corporation comprised of dedicated, experienced engineers capable of performing a wide range of engineering and consulting services. These services include mechanical, electrical, structural, and chemical abilities, with vast experience in the industrial boiler market from studies and retrofitting of all types of existing boiler installations to the complete installation of new facilities encompassing any or all new technologies required in the industrial field today for not only technically successful operations, but also economical success as well. Schmidt Associates, Inc. has specialized in central utilities services for industrial, institutional, and governmental plants including studies, tests, application, and installation of new technologies in industry today.

Product/Service	Description
Advanced Utilization	Conducted extensive research and design work for the government on advanced coal utilization techniques for industrial boilers including coal-oil and coal-water mixtures, slagging coal combustors and fluidized bed boilers.
Architecture/Engineering	Expertise in coal utilization from conception of idea to detailed design.
Boiler Equipment	Specify appropriate equipment for clients.
Facility Construction	Detailed design of numerous coal facilities from point of coal receipt to exit of gases from stack. Conduct on-site inspection of facilities while under construction.

Sheppard T. Powell Associates
1915 Aliceanna Street
Baltimore, MD 21231

STPA

Telephone: (301) 685-3210
Fax: (301) 327-7506
Chief Executive Officer: John W. Siegmund

Sheppard T. Powell Associates has been furnishing consulting services in the field of water treatment and corrosion control for over sixty-five years. We are strictly a consulting services organization that neither manufactures nor markets chemicals and equipment used in water treatment. Our position of independence and objectivity in the practice of water treatment consultation is widely known in the utility and private industry. Independent consultants to users of water and steam for over 65 years: steam and water cycle audits; corrosion assessment and control; startup and chemical cleaning assistance; chemical cleaning assistance; chemical and metallurgical services - high purity water analyses; training; emergency in-plant support; water/waste treatment and management; environmental investigations and permitting assistance; and water resources selection and evaluation.

Product/Service	Description
Boiler Equipment	Consulting services relating to review of boiler water, steam cycle and cooling water chemistries, inspection of equipment, trouble shooting and recommendations for optimizing operations.
Facility Operations	Consulting services include "in plant" inspections and studies designed to define problem areas and offer recommendations to correct and optimize water related operations of all types including coal pile drainage wastewater treatment.

Spire Corporation
Patriots Park
Bedford, MA 01730



Telephone: (617) 275-6000
Telex: 951072
Fax: (617) 275-7470
Chief Executive Officer: Roger G. Little
International Sales Manager: Peter Loges, SPI-WEAR Contact
Raymond Bricault, Ion Implantation Contact

Spire has developed two major technologies for coal-based systems, (1) SPI-WEAR™ for precisely measuring wear, erosion, and corrosion in mechanical systems, and (2) ion implantation treatments to enhance wear and corrosion resistance. Spire is a leader in surface modification by ion implantation and other vacuum technologies for improving wear and corrosion resistance without causing dimensional changes. SPI-WEAR™ is a powerful method for in situ wear measurement and on-line diagnostic monitoring, which is based on radionuclides induced on wearing parts by energetic ion beams. Gamma rays from the activated surface are penetrating and easily detected outside allowing precise measurement of surface loss in inaccessible locations with an externally mounted detector. It is extremely accurate, flexible, and unaffected by local conditions such as temperature or pressure. As a result, it is an ideal solution to wear measurement problems in many components of coal fueled power generation systems. Extreme precision reduces testing time and allows resolution of subtle tribological phenomena such as break-in or lubricant additive depletion. Spire is a diversified research firm with three main business areas: surface modification, electronic materials, and photovoltaics. The Ion Implantation Division employs about 45 technical personnel devoted to ion implantation, sputtering, and other ion beam processes. In-house facilities include eight mass-analyzed ion implanters, three sputtering machines, one non-mass-analyzed implanter, one PACVD system, and one ion beam enhanced deposition system. Evaporators, electron beam annealing accelerators and extensive materials characterization equipment are also available.

Product/Service	Description
SPI-WEAR™ 200 Analyzer	System for on-line diagnostic monitoring of surface loss due to wear, erosion, or corrosion. Includes: multichannel analyzer with internal HV supply, timing control, dead-time corrections, pulse shaping pre-amplifier. Controlled by PC operating in parallel using menu driven software package. Includes all cables and NaI detector.
SPI-WEAR™ Support Services	Accelerator activations, customized selection of beam parameters, depth profile calibrations, on-site technical support, data analysis.
Ion Implantation Services	Ion implantation consists of directing ions of a desired chemical species through an accelerating electric field to implant them into a target material. Ions are electrically extracted from plasma, focused by magnetic and electrostatic lenses, and accelerated to high energies. Advanced implanters use a magnetic analysis to separate desired ions by their mass/charge ratio prior to implantation.

TRW Combustion Business Unit
2111 Rosecrans Avenue
El Segundo, CA 90245



Telephone: (213) 297-4550
Telex: 258646 CTRW UR
Fax: (213) 535-4150
Chief Executive Officer: Ronald E. Viani
International Sales Manager: John F. Archambault
International Offices: DENMARK: Hugh Sharman, Incoteco, Toldbodvej 12, 9370-Hals TEL. 45-8-251760, FAX 45-8-252555; ITALY: Carlo Stellin, CTIP S.p.A., Via Cesare Giulio Viola, 48, Magliana Vecchia, 00148 Rome TEL. 39-6-590-2502, FAX 39-6-685-7517; JAPAN: Shozo Kataharada, Business Development Department, Gadelius Energy, 27 Naniwacho Chuo-ku, Kobe 650 TEL. 81-78-391-7251, FAX 81-78-391-8988; UNITED KINGDOM: Peter Robinson, Ryan International Limited, Cypress Dr., St. Mellons, Cardiff CF3 OEG Wales TEL. 44-222-779357, FAX 44-222-792504

TRW is an international company strategically focused on providing products and services with a high technological or engineering content to space, defense, information systems, automotive and energy markets. Founded in 1901, the company employs about 73,000 people, many with sophisticated technical expertise, at about 300 locations in 21 countries. TRW Energy Units is the focal point for the energy business within the corporation and includes the Combustion Business Unit which provides an Entrained Coal Combustion System for retrofit or new utility and industrial boilers with environmentally acceptable emissions performance.

(Continued on next page)

TRW Combustion Business Unit (Continued)

Product/Service	Designation	Description
Entrained Coal Combustion System	Model/Maximum Capacity Model 35 50 MMBtu/Hr Model 45 100 MMBtu/Hr Model 55 150 MMBtu/Hr Model 65 200 MMBtu/Hr Model 70 250 MMBtu/Hr	The TRW Entrained Coal Combustion System is a new generation pulverized coal burning system that offers industrial and electric utility energy procedures significant benefits, including operating flexibility, improved environmental performance, high efficiencies, and low capital cost. Simplicity of combustor design, with no moving parts, minimizes maintenance and the potential for failure and outages. Compactness of the unit allows installation in available space normally allowed for oil-firing systems.

Zurn Industries, Inc.
Energy Division
1422 East Avenue
Erie, PA 16503-1592

ZURN *a step ahead of tomorrow*

Telephone: (814) 452-6421
Telex: 91-4471
Fax: (814) 455-9932
Chief Executive Officer: Robert M. Eisert
International Sales Manager: James Boyd
International Offices: COSTA RICA: (Sales Rep): Chester M. Patterson, Jr., Interont S. A., P. O. Box 2104, San Jose TEL. (506) 22-1111 or 22-7474; IRAN: Sam Saremi, Semaitex Intec Trade, Jungfernsteig 38, D-2000 Hamburg 36, West Germany TEL. (040) 351761; ISRAEL: Raphael Ben-Yosef, Aravah A.T.I. Ltd., P. O. Box 14051, Tel Aviv, 61140 TEL. (03) 330814; KUWAIT: N. G. Abraham, Bader Al-Sayid Hashim, Al-Gharabally, P. O. Box 158 (Safat), Arabian Gulf TELEX 22738 B ASHAG KT; MEXICO: Gerald R. Forsythe, Indeck Power Equipment Co., 1111 So. Willis Ave., Wheeling, IL 60090 TEL. (312) 541-8300; THE PHILIPPINES: Vic Sianghio, Jr., VS Energetics, Inc., P. O. Box 15, Greenhills, San Juan, Metro Manila TEL. 721-3892; TAIWAN: George C. Seen, Freedom Trading Co., Ltd. P. O. Box 456, Taipei TEL. 331-4740 or 331-7711; TURKEY: Ismail Tiner, P. K. 18 Kizilay, Ankara 06422 TEL. (4) 117.22.91

Zurn Energy Division is one of seventeen operating divisions of Zurn Industries, Inc., a New York Stock Exchange-listed company based in Erie, Pennsylvania. The division designs, engineers and produces factory-assembled and field-constructed steam generating systems designed to fire traditional fossil fuels--gas, oil and/or coal, as well as alternate waste fuels such as wood, agricultural residue, municipal refuse and a variety of gaseous, liquid and solid waste fuels. In addition, Zurn Energy Division offers heat recovery steam generator designs for various process gases including gas turbine exhaust in combined cycle operation.

Product/Service	Description
VL Steam Generating Systems	Watertube design for gaseous, liquid or solid fuel firing. Ideal for low-capacity (10-80 million Btu/Hr input), solid fuel-fired applications with maximum shop assembly.
VC Steam Generating Systems	Field-constructed watertube designs for low-cost mid-size (20-250 million Btu/Hr input) solid-fuel firing.
Two-Drum Steam Generators	Watertube design ideally suited for medium to large capacity (80-1,000 million BTu/Hr input) applications firing a wide range of gaseous, liquid and solid fuels.
Firing Systems	Coal-fired spreader stokers. Wood/refuse/biomass-fired burners for gaseous, liquid and solid (pulverized coal fuel firing).
Heat Recovery Components	Economizers and tubular air heaters for maximum energy conservation.

Emissions Control and Waste Disposal Systems:

Firms providing in-process (LIMB, etc.) and stack (ESP, Baghouses, Cyclones, etc.) emissions control systems, and waste stream management, disposal, and recycling technology.

AFT, Inc.
200 Public Square
21-3604-K
Cleveland, OH 44114-2375

Telephone: (216) 586-5206
Telex: 6873120
Fax: (216) 586-5448
Chief Executive Officer: Jerry J. Oliver
International Sales Manager: William F. Christensen
Domestic Offices: BRIDGEPORT, NJ: 618 Heron Drive, P.O. Box 339, Bridgeport, NJ 08014

AFT, Inc. is a wholly owned subsidiary of BP America and is involved in the production and marketing of coal fuels that have been beneficiated using AFT's patented SPRAYFLOT™ flotation cells. The company also licenses the technology and participates in joint ventures worldwide. One of the original developers of coal-water slurries, the company is now able to apply its mineral separation technology to the beneficiation of coal waste streams.

Product/Service	Description	
Coal Mining Advanced Utilization	SPRAYFLOT™	The SPRAYFLOT™ flotation cell can be used to effectively reduce ash and sulfur levels in high-ash coal waste streams. As the integral part of AFT's unique beneficiation system, it ensures improved separation, selectivity and recovery, when compared to conventional flotation methods.

Agglite Corporation
P. O. Box 1647
Charlottesville, VA 22902



Telephone: (804) 977-7040
Fax: (804) 977-1916
Chief Executive Officer: Peter W. Schmidt
International Sales Manager: Gary D. Courts
Domestic Offices: CHESAPEAKE, VA: 2701 Vepco St., Chesapeake, VA 23323 TEL. (804) 487-9631

The Agglite Corporation owns a patented process to manufacture high quality lightweight aggregate from coal fly ash. This lightweight aggregate is used as a primary ingredient in concrete and concrete block manufacturing. Agglite is owned by Allied Concrete Company, a large American concrete-products company with over 40 years of manufacturing experience in redi-mix concrete, concrete block, prestressed concrete and other building materials. Fly ash, along with cement and other ingredients are agglomerated into hardened pellets. These pellets provide the block or ready-mixed concrete producer several advantages over existing materials including decreased manufacturing costs, lower unit weight and improved particle shape.

Product/Service	Description
Coal Derivatives	There is an increasing need for economically attractive and environmentally sound alternatives to disposal of high volumes of combustion by-products. The development of our manufactured lightweight aggregate process through the operation of laboratory and pilot-scale facilities has led to the successful construction and operation of commercial plants with two major utility companies. The Agglite process is not limited to low carbon fly ashes like most conventional uses. The basic Agglite technology involves material agglomeration through the operation of a pan pelletizer. We are currently involved in efforts to process a variety of ashes and other advanced coal combustion by-products to render them environmentally acceptable and to facilitate handling and transportation of materials back to mine sites or other areas.

Babcock & Wilcox
Power Generation Group
20 S. Van Buren Avenue
Barberton, OH 44203-0351

Babcock & Wilcox
a McDermott company

Telephone: (216) 753-4511
Telex: 986406
Fax: (216) 860-1886
Chief Executive Officer: Robert E. Howson
International Sales Manager: Ian K. Anderson
Domestic Offices: NEW ORLEANS, LA: McDermott International, 1010 Common Street, New Orleans, LA 70160
International Offices: CANADA: Babcock & Wilcox International, 581 Coronation Blvd., Cambridge, Ontario N1R 5V3

The Babcock & Wilcox Company has been a leader in coal-fired steam boilers ever since George Babcock and Stephen Wilcox were granted a patent on the safety tube boiler in 1867. Today, B&W builds coal-fired boilers with steaming capacities from 100,000 pounds per hour up to 9,300,000 pounds per hour. Reliable operation has always been a key goal. American Electric Power operated its Mountaineer power plant -- including a B&W 1300 MWe boiler -- continuously for 607 days in 1986 and 1987. Let us provide you with the same quality.

Product/Service	Description
Boilers	Conventional boilers fired by stoker or pulverized coal. Fluid bed boilers of bubbling, circulating, and pressurized design.
Burners	Conventional and low NOx.
Pulverizer Mills	Our rugged MPS model mill has been proven in over 600 units on a side variety of coals.
Environmental Control Systems	In cooperation with the Clean Coal Program of the U.S. Department of Energy, B&W has demonstrated sulfur removal in the lower furnace (fluid bed), the upper furnace (LIMB), the boiler backend (LIDS), and in the precipitator (ESOx). Consider B&W if you need a customized retrofit application to minimize sulfur.
Flue Gas Desulfurization (scrubbers)	B&W scrubbers are in operation and construction from 25 MWe to 1300 MWe, using lime, limestone, thiosorbic lime, and sodium.

Baker/TSA, Inc.
Airport Office Park, Bldg. 3
420 Rouser Road
Coraoplis, PA 15108

Telephone: (412) 269-6000, (800) 553-1153
Fax: (412) 269-6097
Chief Executive Officer: C. J. Touhill, P.E., Ph.D., President
International Sales Manager: J. D. Whiteford
Domestic Offices: JACKSON, MS: 3957 Northview Dr., Jackson, MS 39206 TEL. (601) 987-4406; MERRILLVILLE, IN: 701 East 83rd Ave., Merrillville, IN 46410 TEL. (219) 736-0263, FAX (219) 755-0233; PRINCETON, NJ: Princeton Commerce Center, Building C, 29 Emmons Dr., Princeton, NJ 08540 TEL. (609) 987-6900, FAX (609) 243-0558; WESTBORO, MA: Weston Geophysical Corporation, Lyons Street, P.O. Box 550, Westboro, MA 01581 TEL. (508) 366-9191, FAX (508) 366-9197
International Offices: Please contact company headquarters for further information.

Baker/TSA's staff of over 175 include the disciplines of environmental, chemical, geotechnical, civil, and mechanical engineering; biology, ecology, and toxicology; industrial hygiene; chemistry and geochemistry; geology and hydrology. This highly trained staff works together to provide integrated solutions for addressing clients' needs in a responsive and cost-effective manner. Baker/TSA provides coal industry clients comprehensive water, wastewater, and solid waste management engineering services. Baker/TSA has experience in management of coal cleaning and coal combustion wastes including waste characterization, handling, conditioning, disposal, and utilization as well as experience in treatment of acidic wastewaters and contaminated groundwaters. The Coraopolis, Pennsylvania headquarters office, adjacent to the Greater Pittsburgh International Airport, is the technical and administrative resource base.

Product/Service	Description
Waste Utilization Assessments	Baker/TSA performs utilization assessments to identify potential waste utilization applications. Capability and experience include literature based evaluations of technical and economic feasibility and marketability, waste characterization analyses, laboratory and/or field scale demonstration testing, and local market definition.
Architecture/Engineering Waste Disposal Facility Design	Baker/TSA provides comprehensive civil, geotechnical and environmental engineering services for disposal facility development and design including: site selection studies, surveying, conceptual design, final design plans and specifications, preparation of permit applications, and onsite construction management.
Water/Wastewater Treatment Engineering	Baker/TSA engineers have extensive experience with physical, chemical, and biological treatment processes related to process water pretreatment, process water treatment, leachate and contaminated groundwater treatment, and process water recycle/reuse. Engineering capabilities include conceptual design, treatability and/or pilot plant studies, final system design, preparation of permit applications, and construction management.

Charwill, Inc.
24342 Tamarisk Street
Boron, CA 92516

Telephone: (619) 722-5717
Chief Executive Officer: William Nelson

Charwill's process utilizes existing stack scrubbing facilities to remove SOx and NOx more efficiently and more economically. Scrubbers are an operating expense, but this process generates marketable by-products that will not only cover maintenance costs but will generate additional company profits.

Product/Service	Description
Stack Emission Control Technology	Using a common inexpensive mineral to remove SOx and NOx from effluents and producing marketable by products. Existing Scrubbers are utilized. Easily adapted to all new designed equipment.

Ellison Consultants
4966 Tall Oaks Drive
Monrovia, MD 21770

Telephone: (301) 865-5302
Fax: (301) 831-5443
Chief Executive Officer: William Ellison
International Sales Manager: Gerd A. Ellison

The firm comprises technical development and engineering design specialists serving as independent consultants since 1981. The company is internationally recognized for its worldwide, coal-related, consulting work assignments and publications and oral communications experience for technology transfer to and from U.S.A. in the field of coal energy development and environmental pollution control.

Product/Service	Description
Stack Emission Control	The firm serves as a consultant to provide expertise in project planning and design activity for evaluation and utilization of available and emerging technologies for control of particulate, SO_2 and NOx emissions in firing of bituminous coal of high or alternative low sulfur content.
Management of Collected Waste	The firm offers specialized consulting service in coal-fueled project planning and design of management and marketing of solid and liquid waste byproducts generated by diverse means of control of environmental pollution.

Energy and Environmental Research Corporation
18 Mason
Irvine, CA 92718

Energy and Environmental Research Corporation

Telephone: (714) 859-8851
Telex: 181787
Fax: (714) 859-3194
Chief Executive Officer: Thomas J. Tyson
International Sales Manager: Michael P. Heap, President
Domestic Offices: ORRVILLE, OH: 1645 N. Main, Orrville, OH 44667 TEL. (216) 682-4007, FAX (216) 684-2110; DURHAM, NC: 3622 Lyckan Parkway, Durham, NC 27707 TEL. (919) 489-1726, FAX (919) 493-5670; WHITEHOUSE, NJ: P.O. Box 189, Whitehouse, NJ 0888 TEL. (201) 589-1726, FAX (201) 534-9018
International Offices: Please contact company headquarters for further information.

EER specializes in combustion and air pollution control for coal. This includes the development and application of advanced combustion systems and emission control equipment. EER also specializes in the tuning and optimization of combustion equipment. This includes burner balancing, sootblower optimization and other techniques to produce optimum thermal performance and minimum emissions. EER has experience with all fossil fuels including coal, oil and gas. EER also has experience in the incineration of waste materials including hazardous waste, municipal solid waste and medical waste. Annual sales are approximately $9,000,000. Employees number about 100, mostly engineers with advanced degrees.

Product/Service	Description
Coal Quality Evaluation	Comparative evaluations of alternate coals including analysis and test burns.
Emissions Compliance	Evaluations of alternate strategies for meeting NOx, SO_2 and particulate emission regulations at minimum total cost.
Performance Optiminization	Tuning coal combustion systems for maximum efficiency, minimum emissions and minimum total cost.
SO_2 Control Systems	Several SO_2 control processes including in furnace and duct sorbent injection systems.
NOx Control Systems	Several NOx control processes including reburning, ammonia injection, flue gas recirculation, low NOx burners and several new technologies under development.

Energy Systems Associates
15991 Red Hill Avenue, Suite 110
Tustin, CA 92680

Telephone: (714) 259-9520
Fax: (714) 259-0372
Chief Executive Officer: Bernard P. Breen
International Sales Manager: John H. Pohl
Domestic Offices: PITTSBURGH, PA: 1840 Gateway Three, Pittsburgh, PA 15222 TEL. (412) 392-2390; LAGUNA HILLS, CA: 24422 Avenita de la Carlota, Suite 290, Laguna Hills, CA 92653 TEL. (714) 770-0802
International Offices: AUSTRALIA: Lindsay Juniper, 41 Hilda Street, Corina, Queensland 4075 TEL. 61-07-379-2718

Energy Systems Associates (ESA) is an engineering consulting and construction firm. ESA provides expert services to the fuel, utility and industrial process industries. The services provided include: measurement of emission and performance evaluation of fuel properties and the effect of these properties on performance, control of pollutant emissions and modification and construction of combustion and boiler systems. ESA services have been provided to Australia, Brazil, Canada, Finland, Republic of Korea and Taiwan (R.O.C.).

Product/Service	Description
Measurements	ESA makes field measurements of all gases, including boiler profiles, solids, temperatures, heat fluxes, velocities, deposits which affect combustor performance and pollutant emissions.
Fuels Evaluation	ESA evaluates the properties of fuels and predicts and controls boiler performance for coal transport and storage, coal grinding, flame stability, slagging, fouling, burnout corrosion, erosion, ESP and baghouse performance, and emission of pollutants.
Emission Control	ESA designs, modifies and installs equipment to meet emission control limits.
Modification and Construction	ESA designs, modifies and constructs combustion equipment to meet performance and emission goals.

The ERM Group
855 Springdale Drive
Exton, PA 19341

Telephone: (800) 544-3117
Telex: 4900009249
Fax: (215) 524-7335
Chief Executive Officer: Paul H. Woodruff, P.E.
International Sales Manager: Kenneth T. Fillman
Domestic Offices: BOSTON, MA: ERM-New England, Inc., 205 Portland Street, Boston MA 02114 TEL. (617) 742-8288; SEATTLE, WA: ERM-Northwest, Inc., 2821 Northrup Way, Bellevue, WA 98004 TEL. (206) 827-9440; DENVER, CO: ERM-Rocky Mountain, Inc., 5950 South Willow Drive, Suite 310, Englewood, CO 80111 TEL. (303) 741-5050; COLUMBUS, OH: ERM-Midwest, Inc., 450 W. Wilson Bridge Road, Columbus, OH 43085 TEL. (614) 433-7900; CHICAGO, IL: ERM-North Central, Inc., 102 Wilmot Road, Suite 300, Deerfield, IL 60015 TEL. (312) 940-7200; LONG ISLAND, NY: ERM-Northeast, 88 Sunnyside Blvd., Suite 104, Plainview, NY 11803 TEL. (516) 349-0050; TAMPA, FL: ERM-South, Inc., 9501 Princess Palm Avenue, Suite 100, Tampa, FL 33619 TEL. (813) 622-8727; NASHVILLE, TN: ERM-Southeast, Inc., 215 Centerview Drive, Suite 110, Brentwood, TN 37024-0881 TEL. (615) 373-3350; HOUSTON, TX: ERM-Southwest, Inc., 16000 Memorial Drive, Suite 200, Houston, TX 77079 TEL. (713) 496-9600; SAN FRANCISCO, CA: ERM-West, Inc., 1777 Botelho Drive, Suite 260, Walnut Creek, CA 94596 TEL. (415) 946-0455
International Offices: WEST GERMANY: Environmental Resources Management, Inc., Frankfurter Strasse 33-35, Postfach: 5427, D-6236 Frankfurt-Eschborn TEL. 6196-703 413; CANADA: ERM-Canada, Inc., Suite 304 Suntower, 100 West Pender Street, Vancouver, British Columbia, V6B 1R8 TEL. (604) 684-4434; ENGLAND: Environmental Resources LTD., 106 Gloucester Place, London W1H3DB TEL. (011-44-1) 486-1211; HONG KONG: ERL (Asia) Limited, Suite 1811, Star House, 3 Salisbury Road, Kowloon TEL. (011-85-2) 372-35983; ITALY: Produzione Ambiente, Risorse, P.A.R.s.r.l., Corso Di Porta Nuova, 15, 20121-Milano, (I) TEL. (011-39-2) 655-5823

The ERM Group is an affiliation of 27 multidisciplinary environmental consulting and construction management firms and analytical laboratories with over 50 offices located worldwide. Founded in 1977, the ERM Group has 1,000 employees helping clients solve complex environmental problems. The ERM Group is a technically oriented consulting organization with an experienced staff, supported by a state-of-the-art environmental analytical laboratory. Our professionals have in-depth experience in these areas: site remediation; hydrogeology; hazardous/solid waste management;

(Continued on next page)

The ERM Group (Continued)

management consulting; engineering services; underground tank management; environmental science; air pollution control; computer services; construction; and health, safety and toxicology.

Product/Service	Description
Permitting and Siting	Finding optimum locations for facilities, preparing necessary permits, and negotiating permit specifications with agencies.
Emissions Controls	Estimating and sampling emissions, modeling pollutant transport and dispersion, determining real risk to receptor, designing emissions control strategies and systems to protect receptors and comply with regulations.
Environmental Planning	Preparing environmental management strategies for all aspects of operations.
Waste Handling	Designing systems to collect and developing plans to landfill coal ash.

GAI Consultants
570 Beatty Road
Monroeville, PA 15146



Telephone: (412) 856-6400
Fax: (412) 856-4970
Chief Executive Officer: Anthony M. DiGioia, Jr.
International Sales Manager: Anthony M. DiGioia, Jr.
Domestic Offices: CHARLESTON, WV: 4715-C MacCorkle Avenue SE, Charleston, WV 25304 TEL. (304) 925-7730; RALEIGH, NC: 401 Glenwood Avenue, Raleigh, NC 27603 TEL. (919) 828-0801; ORLANDO, FL: 1833 Edgewater Drive, Orlando, FL 32804 TEL. (407) 423-8398
International Offices: Please contact Monroeville office for further information.

GAI Consultants has been providing engineering services to the mining industry since 1958. GAI's staff of specialists includes mining and civil engineers, geologists, hydrogeologists, archaeologists, and agronomists. This multidisciplinary team of engineers, scientists, planners, and environmental specialists assists mining companies in projects ranging from exploration, siting and permitting through mine planning and engineering to treatment of coal combustion waste. GAI's scope of work may range from short-term consultation to total project design. Geographically, GAI is well positioned for the coal mining industry. Our offices are located in Monroeville, Pennsylvania; Charleston, West Virginia; Raleigh, North Carolina; and Orlando, Florida.

Product/Service	Description
Mine Planning and Design	GAI provides full design and planning services for new or expanding mines including drilling, geophysical testing, feasibility studies, mine layouts, and selection of mining methods and mine access. GAI also provides assistance in planning and siting auxiliary mine facilities as well as beneficiation and coal gasification facilities.
Waste Disposal and Land Reclamation	Waste disposal and land reclamation services at GAI range from overall engineering design and materials handling procedures to environmental studies and ground water investigations. GAI provides services for dry refuse disposal areas as well as slurry impoundments; treatment of acid mine drainage; design of waste disposal dams and ponds; and regrading, revegetation, and reclamation planning.
Environmental and Subsidence Engineering	Environmental services provided by GAI include pollution abatement, reclamation planning, environmental impact statements, waste disposal and permitting studies, ground water monitoring, and acid mine drainage studies. Subsidence-related services include subsidence plans, mine and surface stabilization, prediction of subsidence and ground movement, subsidence investigation and control plans, and design of subsidence-resistant structures.

GeoResearch, Inc.
2815 Montana Avenue
Billings, MT 59101



Telephone: (406) 248-6771
Fax: (406) 248-6770
Chief Executive Officer: Douglas Richardson, Ph.D.
International Sales Manager: Douglas Richardson, Ph.D.
International Offices: Please contact company headquarters for further information.

GeoResearch, Inc., provides comprehensive environmental consulting services to coal mining, coal processing, and coal burning industries. GeoResearch is an experienced multidisciplinary firm, with staff including expert hydrogeologists, meteorologists, air quality specialists, analytical chemists, environmental engineers, and computer programmers. GeoResearch has extensive experience in issues pertaining to acid rain. GeoResearch is currently conducting a two year study in conjunction with the Government of Italy to assess the occurrence and potential for acid rain there. GeoResearch also offers Global Positioning Satellite (GPS) survey services integrated with computer based Geographic Information Systems (GIS) to produce surveys, maps, and to effectively manage geographic data of all types.

Product/Service	Description
Air Quality Services	Monitoring system design and computer dispersion modeling of all relevant parameters including: meteorology, SO_2, NO_x, O_3, H_2S, odor, total and respirable particulates, etc. Acid rain studies. Source apportionment.
Water/Ground Water Services	Hydrogeologic analysis, aquifer testing, ground water monitoring, water supply, mine dewatering, mine drainage, water quality, hydrochemistry, flow measurements, aquifer remediation.
Computer Mapping Services	State-of-the-art computer based survey and mapping capabilities utilizing Global Positioning Satellite technology integrated with ARC/INFO GIS software. Positional and topographic tolerances to $\pm$ 2 cm.

Graver Water International
2720 U.S. Highway 22
Union, NJ 07083



Telephone: (201) 964-2524
Telex: 6853093 GRAVX UW
Fax: (201) 964-7770
Chief Executive Officer: Richard Hoard
International Sales Manager: George Flynn
International Offices: Licensee Network Located Throughout The World

The Graver Company is a member of the multi-billion dollar Marmon Group. Graver Water International, a Division of the Graver Company, actively markets and pursues projects on a global basis, utilizing the expertise and experience of its other divisions; Graver Water, Graver Chemical, Unitech and Ecodyne Limited, to design and supply a comprehensive line of water and waste treatment equipment. Our products and systems are aimed toward the electric utility, cogeneration, chemical, petroleum, electronics, pharmaceutical, pulp and paper, and metals industry.

Product/Service	Description
Utility Waste Treatment	Treatment system for coal pile runoff, maintenance cleaning wastes, FGD and wet scrubber blowdown.
Pretreatment	Full line of solids contact and lamella clarifiers, gravity and pressure filters for removal of suspended solids, organics, turbidity reduction and/or softening.
Thermal Processes	Spray and tray type feedwater deaerating heaters, evaporators and crystalizers; hot process and zeolite softeners for hardness reduction.
Makeup and Condensate Demineralizers	Cation, anion and mixed bed ion exchange equipment; Powdex design combining ion exchange and filtration.

JTM Industries, Inc.
777 Franklin Road
Marietta, GA 30067

Telephone: (404) 424-1900
Fax: (404) 424-9290
Chief Executive Officer: Bill G. Fletcher
Executive Vice President: Dennis L. Kinder
Domestic Offices: HOUSTON, TX: 4635 Southwest Freeway, Suite 400, Houston, TX 77027 TEL. (713) 965-9326; ALLENTOWN, PA: 420 W. Emmaus Ave., Allentown, PA 18103 TEL. (215) 797-7674; DAYTON, OH: 240 W. Elmwood Dr., Suite 2011, Dayton, OH 45459 TEL. (513) 435-3194; RICHMOND, VA: 1202 Bellwood Road, Richmond, VA 23237 TEL. (804) 271-7887

JTM Industries, Inc., a wholly-owned subsidiary of USPCI and Union Pacific Corporation, is a full-service by-product management company headquartered in Marietta, GA. JTM provides by-product management programs to the generators of combustion and mineral processing by-products by: (1) developing and implementing proprietary processes which generate higher market value products from coal combustion residue and (2) developing proprietary processes to accommodate reuse and/or disposal of more highly regulated non-hazardous ash streams. JTM has four divisions, each concentrating in a specific area of by-product management while drawing upon the expertise available throughout the corporation.

Product/Service	Description
Ash Management Division	AMD markets coal combustion by-products such as fly ash, bottom ash and fly ash lightweight aggregate throughout the U.S. These markets include concrete and concrete products, highway projects, structural fills, soil stabilization, chemical fixation and grouting. AMD maintains a fully-equipped R & D laboratory in Houston, TX.
Mineral By-Products Division	MBD develops and markets products derived from by-products of cement and lime production. These products include Gypcem®, Multical®, Peanut Maker®, and Pozzalime®. Pozzalime® is used at industrial and commercial waste treatment sites as a drying agent and soil amendment on construction projects. Gypcem® is used to control the set in portland cement. FilterEze™, a relatively new product, is used as a sludge conditioner.
Operations Division	The Operations Division, created January 1, 1989, manages the disposal of combustion by-products in an environmentally acceptable manner. Realizing that proper disposal techniques constitute a major portion of most by-product management programs and are becoming increasingly complicated and expensive, JTM organized this division to totally concentrate its efforts in this area.
Municipal Services Division	This is the newest division of JTM. Municipal Services is involved in the utilization and disposal of municipal solid waste ash and currently operates a half-million dollar pilot plant located in Taylorsville, GA, to develop new technology. JTM considers this activity one of the greatest potential growth areas.
KBK Enterprises, Inc.	KBK is the only subsidiary company of JTM. KBK is an engineering group which provides services to utilities, cogenerators, municipalities, real estate developers and manufacturers. KBK provides internal engineering support to JTM and USPCI and offers its unique consulting services on an independent basis in: ash management, landfill design and permitting, environmental site assessment, ash handling equipment design, material processing plant design, construction management and real estate development.

Monex Resources, Inc.
45 NE Loop 410
Suite 700
San Antonio, TX 78216



Telephone: (512) 349-4069
Fax: (512) 349-8512
Chief Executive Officer: Gerry J. Gordon
International Sales Manager: W. E. Ellis, Jr.
Domestic Offices: ATLANTA, GA: Southern Regional Office, 2030 Powers Ferry Road, Suite 206, Atlanta, GA 30339 TEL. (404) 955-0089; GREENSBORO, NC: Mid-Atlantic Regional Office, 2708 Church Street, Suite G, Greensboro, NC 27405 TEL. (919) 375-4066; AUBURNDALE, FL: Southeastern Regional Office, 227 Pearl Street, Auburndale, FL 33823 TEL. (813) 967-6626; SAN ANTONIO, TX: Southwestern Regional Office, 45 NE Loop 410, Suite 700, San Antonio, TX 78216 TEL. (512) 341-6182

Monex Resources, Inc. is an American corporation headquartered in San Antonio, Texas with over one million tons of fly ash and bottom ash sold annually. Currently nearing the beginning of its fourth decade of operations, Monex Resources has become a national leader in fly ash marketing and handling by providing a fly ash distribution system including over fifteen power plants in ten states reaching from Virginia through the Carolinas, Georgia, Florida to Texas. The Company also operates admixture manufacturing facilities in Florida, North Carolina and Texas and ash landfills throughout the southern and southeastern states.

Product/Service	Description
Fly Ash	Through selective collection and classification at the power station, Monex is able to produce only the highest quality, consistent fly ash, featuring lower loss on ignition (carbon content) and the highest performance characteristics in concrete. In addition to its utilization in the production of concrete and concrete products, fly ash is also provided for use as a mineral filler in asphaltic concretes and other industrial uses, as an additive for the stabilization of chemical wastes and sludges, as an effective pozzolanic cementing agent in grouts and controlled density fills, and in the production of road base and roller compacted concretes.
Bottom Ash	Monex bottom ash is a valuable additional by-product of the coal combustion process. In its processed form, Monex pyrite-free bottom ash is an attractive, cost-effective alternative to manufactured lightweight aggregates in the manufacture of concrete products. While the characteristics of the bottom ash vary by source, significant savings in the cost of aggregates are possible, while producing a concrete unit of desireable texture, weight, absorption characteristics, and shrinkage. Bottom ash is also extensively utilized as a correcting material, in the manufacture of portland cement providing a source of the alumina and iron compounds required for cement clinker production.
Ash Disposal	Through its Utility Services division, Monex performs ash management services for the electricity generating industries. Utility Services is responsible for the management, transportation, placement, compaction, and reclamation of fly ash, bottom ash, and ponded ash in environmentally acceptable landfills. This division managed some 1.5 million tons of ash disposal in the year ended June, 1988.

The M.W. Kellogg Company
Three Greenway Plaza
Houston, TX 77046-0395



The M.W. Kellogg Company

Telephone: (713) 960-2000
Telex: 166385 MWKHOC
Fax: (713) 960-2032
Chief Executive Officer: Donald C. Vaughn, President
International Sales Manager: J. Albert Stanley, Senior Vice President of Worldwide Sales
Domestic Offices: DARIEN, CT; WASHINGTON, DC
International Offices: ENGLAND: M.W. Kellogg Limited, The M.W. Kellogg Building, Stadium Way, Wembley, Middlesex, HA9 OEE TEL. 44-1-903-8484; BRITISH WEST INDIES: Cayman Islands; ARGENTINA: Buenos Aires; SINGAPORE; PEOPLE'S REPUBLIC OF CHINA: Beijing; INDONESIA: Jakarta; MALAYSIA: Kuala Lumpur

The M.W. Kellogg Company, an international, technology-based subsidiary of Dresser Industries, Inc., is a world leader in the engineering, procurement, construction and commissioning of chemical, petrochemical, fertilizer, gas processing, refining, and computer integrated manufacturing projects. Additionally, Kellogg provides operations and maintenance capabilities. Kellogg is also on the forefront of clean fuels technology with the acquisition of the KRW coal gasification process and development of clean air technology. The company has completed more than 3,000 major projects and many smaller projects worldwide.

Product/Service	Description
Coal Gasification	Kellogg's KRW coal gasification process is capable of operating at high conversion on a wide range of coals. Feeds ranging from lignites and brown coal to high and low volatile bituminous coal have been tested in the Waltz Mill, PA pilot plant using both air and oxygen as oxidants and limestone and dolomite as in-bed sorbents for sulfur. The process can be used to produce low- or moderate-BTU gas for synthesis or for power generation. Hot gas clean-up using Zinc ferrite yields low SOx emissions, and low-BTU gas yields low NOx in combined cycle power plants.
Pressurized Circulation Fluid Bed Combustion	Kellogg's PCFBC processes pulverized coal and limestone or dolomite in a high velocity reactor, which completely combusts the coal while yielding very low SOx and NOx emissions. The pressurized flue gas is expanded to produce power in a combined cycle mode. The sorbent is fully oxidized in the reactor, eliminating subsequent treatment of the ash and spent sorbent for disposal. The technology is a low-cost alternative for cogeneration and power applications.
Flue Gas Desulfurization	Kellogg's flue desulfurization technology utilizes a limestone sorbent in a horizontal scrubber. The technology has been proven in commercial operation on large utility boilers feeding both high and low sulfur U.S. coals. The process features high sulfur removal (greater than 90%) and high calcium utilization. Magnesium or dibasic acid addition is often used to enhance the system. A special feature of the horizontal Weir scrubber is both low flue gas pressure drop and low sorbent circulation, resulting in significant operating advantages.
Design, Procurement, Construction and Plant Services	Kellogg offers EPC capabilities as well as operations and maintenance services on a worldwide basis.
Research and Development Services	Kellogg has bench-scale and pilot plant facilities for the development and testing of coal in gasification and combustion modes. Kellogg's coal lab allows the analysis of coal and ash properties. The company can also prepare design studies for a wide range of process and power applications based on the specific coal properties.

Passamaquoddy Technology
178 Middle Street
P.O. Box 7412 DTS
Portland, ME 04112



Telephone: (207) 773-8656
Fax: (207) 773-8832
Chief Executive Officer: Garrett L. Morrison, Ph.D.
International Sales Manager: Donald W. Perkins, Jr.
Domestic Offices: THOMASTON, ME: Office of Research & Development, U.S. Route One, P.O. Box 350, Thomaston, ME 04861

Passamaquoddy Technology is dedicated to developing cost effective solutions to complex environmental problems that confront heavy industry. Passamaquoddy Technology is currently demonstrating its Recovery Scrubber at commercial scale. Also under development are solutions to carbon dioxide emissions, economically viable use of waste tires, and economically viable use of municipal incinerator ash.

Product/Service	Description
Recovery Scrubber	The Recovery Scrubber is a flue gas desulfurization technology (90% + SO_2 scrubbing efficiency, significant NOx and CO_2 scrubbing) that utilizes a waste product as scrubbing reagent, produces marketable byproducts (fertilizer, distilled water, and cement kiln feed), and is applicable to fossil-fired boilers in the utility, cement, paper and waste-to-energy industries. The Recovery Scrubber is unique in its use of a waste stream as scrubbing reagent, its production of byproducts with proven markets, and its potential to defray operating and capital costs through reagent tipping fees and byproduct sales revenue. The Recovery Scrubber is currently being demonstrated at commercial scale. Inquiries regarding performance characteristics and cost estimates for specific sites are welcome.

Radian Corporation
P. O. Box 201088
Austin, TX 78720-1088

RADIAN CORPORATION

Telephone: (512) 454-4797
Telex: RCA# 269263 RAD UR
Fax: (512) 454-7129
Chief Executive Officer: Donald M. Carlton, Ph.D.
International Sales Manager: R. Murray Wells
Domestic Offices: HOUSTON, TX: 10675 Richmond Ave., Suite 190, Houston, TX 77042 TEL. (713) 785-9225; LOS ANGELES, CA: 2250 E. Imperial Hwy, Suite 140, El Segundo, CA 90245 TEL. (213) 640-0045; IRVINE, CA: 7 Corporate Park, Suite 240, Irvine, CA 92714 TEL. (714) 261-8611; MILWAUKEE, WI: 5101 West Beloit Road, Milwaukee, WI 53214 TEL. (414) 643-2701; RALEIGH/DURHAM, NC: 3200 E. Chapel Hill Rd./Nelson Hwy., P. O. Box 13000, Research Triangle Park, NC 27709 TEL. (919) 541-9100; ROCHESTER, NY: 120 Corporate Woods, Suite 260, Rochester, NY 14623 TEL. (716) 292-1870; SACRAMENTO, CA: 10395 Old Placerville Road, Sacramento, CA 95827 TEL. (916) 362-5332; WASHINGTON, DC: 13595 Dulles Technology Dr., Suite 200, Herndon, VA 22071 TEL. (703) 834-1500

Radian Corporation provides technical services to industry and government, both domestically and worldwide. A principal player in wet scrubbing technology, the company has remained in the forefront of technology designed to permit the use of coal while meeting all applicable environmental requirements. Services provided by over 1,400 people at Radian Corporation include analyzing available options for the use of coal, including conceptual designs and preliminary cost estimates, assisting the client in selecting the most attractive technology, working with the client in their discussions with vendors and A&Es, and providing performance testing after start-up. Radian also supplies a full array of analytical chemical services as well as the design and operation of bench and pilot scale projects.

Product/Service	Description
Coal Technology	A principal player in wet scrubbing technology, the company has remained in the forefront of technology designed to permit the use of coal while meeting all applicable environmental requirements. Services provided by over 1,400 people at Radian Corporation include analyzing available options for the use of coal, including conceptual designs and preliminary cost estimates, assisting the client in selecting the most attractive technology, working with the client in their discussions with vendors and A&Es, and providing performance testing after start-up. Radian also supplies a full array of analytical chemical services as well as the design and operation of bench and pilot scale projects.

Technology & Management Services, Inc.
20201 Century Boulevard
Germantown, MD 20874

Telephone: (301) 353-0102
Fax: (301) 353-0514
Chief Operating Officer: Roy A. Wujkowski
International Sales Manager: Roger W. A. LeGassie, Vice President

Technology & Management Services, Inc. (TMS), is a corporation with over 10 years of high technology, project management, and environmental expertise, with particular emphasis on fossil energy. The technical staff is comprised of engineers, scientists, and managers with major industrial and U.S. federal government experience. TMS is involved in overseas technology transfer of fossil energy technology and has provided services in this area to the U.S. Department of Energy (DOE) and major corporations. TMS brings sophisticated management skills to financial analysis and decision-making support to major fossil energy projects. The TMS staff is skilled in many areas of environmental impact analysis, waste disposal systems and major project financing.

Product/Service	Description
Environmental Systems	TMS has performed a number of significant environmental impact analyses of major fossil energy systems. The staff is capable of providing technical and engineering services for emissions control and waste disposal systems. TMS has provided technological support for the U.S. DOE on the Clean Coal Technology Demonstration Programs.
Technical Consultants	Over a 10 year period, TMS has served as a technology and management services consultant to major U.S. Government agencies and corporations. Many of these services have centered on fossil energy technology, including project management and financial analysis of major energy projects.
Financing and Resource Packaging	TMS has developed sophisticated management tools for the analysis and management of major engineering and financial projects. TMS senior staff have significant experience with foreign countries and corporations in developing and financing energy projects.

Texaco Development Corporation
2000 Westchester Avenue
White Plains, NY 10650

TEXACO DEVELOPMENT CORPORATION
We've got the energy!

Telephone: (914) 253-4003
Telex: 1791144
Fax: (914) 253-7744
Chief Executive Officer: H. Richard Horner
International Sales Manager: Madeleine R. Marchese
International Offices: EUROPE: Ed Gerstbrein, Texaco International Limited, Weena 116, 3012 CP Rotterdam, The Netherlands TEL. (010) 4 14 66 11, TELEX 23573, FAX (010) 4 33 45 16; Dick Guenther, Texaco Technology Europe GMBH, Zeppellnalle 50, D-6000 Frankfurt/M. 90, Federal Republic of Germany TEL. 49-69-701047, FAX 49-69-6318-2020, TELEX 411569

Texaco Development Corporation (TDC) is responsible for the patent and licensing activities of its Parent Company, Texaco Inc. and a number of Texaco's subsidiary companies. As a wholly-owned subsidiary corporation, TDC has access to and active cooperation with all departments, affiliates and other subsidiaries of one of the largest integrated petroleum companies in the world. This provides TDC with research, engineering, producing, manufacturing, marketing and technical services availability in 96 countries. Texaco has been developing its gasification technology for over 40 years and has licensed over 90 oil and gas gasification plants around the world. It is the acknowledged leader in coal gasification with six commercial plants licensed worldwide; two of which are now in design and/or construction.

Product/Service	Designation	Description
Texaco Coal Gasification	TCGP	The Texaco Coal Gasification Process produces: Synthesis gas (H_2+CO) for manufacturing ammonia, methanol, hydrogen, oxo-chemicals, acetic acid & anhydride, and pure carbon monoxide as well as fuel gas (H_2+CO) for electric-power generation, refineries, industrial plants and city distribution, and reducing gas (H_2+CO) for liberating metals from their ores. Synthesis fuel and/or reducing gases can be produced from solid carbonaceous fuels (including lignites, bituminous coals, anthracites and petroleum coke), coal tar and coal-liquefaction residue with pure oxygen, oxygen enriched air or air fed as the oxidant dependent upon the application.

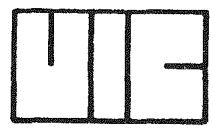
(Continued on next page)

Texaco Development Corporation (Continued)

Solid feedstock is ground to a controlled particle-size distribution, slurried in water or oil, and pumped to a specially designed burner, which mixes slurry and oxidant in a refractory-lined, entrained-bed, slagging gasifier. Partial combustion under closely controlled conditions yields syngas, fuel gas, or reducing gas, which may be either quenched by direct contact with hot water or cooled indirectly in a syngas cooler (waste-heat boiler), so as to produce steam according to optimum energy utilization for the complete project. Gasifier-effluent slag accumulates in a lock hopper for easy removal.

Because of the high temperature and pressure used in the gasifier, by-product tars, phenols, and hydrocarbons heavier than methane are not produced. Most of the process water is recycled. Water-soluble inorganic material is removed by processing a small stream of waste water. Sulfur released by gasification as H_2S, with a minor amount of COS, is removed from the cooled product gas in a conventional downstream gas-treating section and then routed to a Claus unit or a tail-gas-treating unit for sulfur recovery. Byproduct slag and elemental sulfur are marketable commodities and air emissions can easily be controlled to 10-20% of U.S. Environmental Protection Agency allowables for new source performance standards.

United Industries Corporation
12835 Bell-Red Road, #120
Bellevue, WA 98005-2635



Telephone: (206) 453-8995
Fax: (206) 462-4666
Chief Executive Officer: J. T. Lin
International Sales Manager: J. T. Lin

United Industries Corp. (UIC) is an engineering consulting firm specializing in energy and environment. UIC has developed a series of numerical models for calculating the three dimensional wind flow field over coal piles using wind breaks and wind turbines for reduction of fugitive coal dust emanating from the coal yard. UIC, serving as a consultant to Taiwan Power Co., is evaluating the feasibility of utilizing wind turbines combined with porous fences to reduce the emission of fugitive coal dust and meet the air quality standards.

Product/Service	Description
UIC 3D wind flow model	Calculate three-dimensional wind flow field in complex terrain.
UIC wind turbine array performance model	Calculate the production of wind turbine array in complex terrain.
UIC wind break model	Calculate the wind flow reduction due to wind breaks and wind turbines. It can be used to design windbreaks around a coalyard.

Wahlco, Inc.
3600 West Segerstrom Avenue
Santa Ana, CA 92704

WAHLCO, INC.

Telephone: (714) 979-7300
Telex: 295522 WAHLCO SNA
Fax: (714) 850-0775
Chief Executive Officer: W. Clay Matthews
International Sales Manager: Barry J. Southam
Domestic Offices: LEAWOOD, KS: 4707 College Boulevard, Suite 201, Leawood, KS 6621 TEL. (913) 491-9292, FAX (913) 491-6627; THORTON, IL: 470 W. 172 St., Thornton IL 60476 TEL. (312) 877-5300, FAX (312) 877-5315
International Offices: Please contact company headquarters for further information.

Coals, with low sulphur and/or high ash content, produce fly ash which is collected at relatively low efficiencies by electrostatic precipitators; flue gas conditioning systems markedly enhance precipitator performance in such cases. Wahlco, Inc. is the pioneer and the leading manufacturer of flue gas conditioning systems worldwide. Wahlco sulfur trioxide (SO_3) and ammonia (NH_3) flue gas conditioning systems have solved problems of collecting fly ash in electrostatic precipitators for over 280 boilers worldwide...at a cost less than one-half that of other alternatives. Since its founding in 1972, Wahlco, Inc. has accumulated and maintained the leading body of theoretical and practical flue gas conditioning knowledge anywhere.

Product/Service	Description
Sulfur Trioxide Flue Gas Conditioning	A Wahlco Flue Gas Conditioning System, either by sulfur burning or sulfur dioxide vaporization, injects trace amounts of SO_3 into the flue gas before it reaches the precipitator. The SO_3 reduces fly ash resistivity, allowing the precipitator to function at optimum efficiency. This, in turn, allows coal fired plants to run at maximum output while meeting air pollution standards for both SO_2 and particulates.
Ammonia Flue Gas Conditioning	Wahlco ammonia based systems are often utilized to neutralize excessive amounts of sulfur trioxide resulting from combustion of medium to high sulfur coal or oil. Reduction of precipitator rapping losses as well as, in some cases, precipitator operation enhancement can also result.
Combined SO_3/NH_3 Conditioning Systems	When sulfur trioxide and ammonia are combined in a single Wahlco Flue Gas Conditioning System, the effect is to create an almost ideal ash for electrostatic precipitation through optimization of the surface conductivity of the particle. This system can be utilized when "worse case" coals are encountered.

Facilities Construction: Firms providing construction services, often in conjunction with A&E firms.

Acurex Corporation
Environmental Systems Division
485 Clyde Avenue
P.O. Box 7044
Mountain View, CA 94039

ACUREX Corporation
Environmental Systems Division

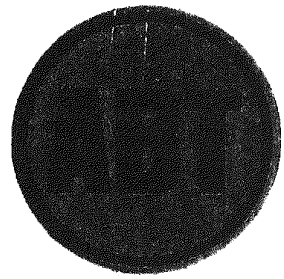
Telephone: (415) 961-5700
Telex: 325961
Fax: (415) 964-5145

Chief Operating Officer: William Dean, President
Division General Manager: William Byars, Vice President
International Sales Manager: David Delasanta
Domestic Offices: TRIANGLE PARK, NC: P.O. Box 13109, Research Triangle Park, NC 27709
International Offices: Please contact headquarters for information.

The Environmental Systems Division of Acurex Corporation provides a full range of fuel services to government and industry. These include combustion facility design, operation and maintenance; environmental engineering and pollution control; and emissions sampling and analysis. Through its research for federal and state agencies such as the Environmental Protection Agency, the Gas Research Institute, the Department of Energy, and the California Energy Commission, the division develops technologies for commercial application and is able to provide industry with turnkey, state-of-the-art solutions for all combustion-related environmental engineering needs.

Product/Service	Description
Advanced Utilization	Testing of solvent-refined coal; assessment of clean coal use in stationary and mobile engines; testing of coal-oil mixtures in boilers; fuel staging research; assessment of coal-oil mixtures as light-off fuel; hot gas cleaning technology for coal-fired, pressurized, fluidized bed combustors.
Architecture/Engineering	Prototype design, fabricate and install coal combustion research furnaces. Design, fabricate and install pilot coal gasifiers, and fluidized bed combustors.
Boiler Equipment	Low SO_2 and low NO_x combustion control technology; boiler modification/engineering; test coal additives to alter flyash characteristics; co-firing of hazardous waste in boilers; perform risk assessment of controlling NO_x emission from coal utility boilers.
Coal Derivatives	Clean coal use in stationary and mobile engines; demonstrate coal-oil mixture prep plant.
Facility Construction	Construction management; install coal combustion furnace; install pilot coal gasifier; supply anthracite gasifier.
Facility Operation	Operation of coal burning plants/equipment; O&M of fluidized bed combustor.

Allegheny Boiler Tube & Mfg. Co.
Juniper & Douglas Streets
P.O. Box 700
McKeesport, PA 15184



Telephone: (412) 751-3430
Fax: (412) 751-7527
Chief Executive Officer: John C. Baver
International Sales Manager: Fritz H. Bachman

ABT is a heavy industrial fabricator located just outside of Pittsburgh, Pennsylvania, specializing in fabrications built to A.S.M.E. code. Our field service division is a leading mechanical contractor servicing the Eastern United States.

Product/Service	Description
Boiler Components	Fabrications such as superheater and economizer elements, membrane waterwall panels, burner openings, generating tubes and dissimilar dutchmen, all built to A.S.M.E. code. Emergency tube bending services offered.
Boiler Systems	Package, watertube and firetube boilers sold, bought and refurbished.
A.S.M.E. Code Fabrications	Tanks, pressure vessels and heat exchangers built and reconditioned.
Turnkey Construction Service	Complete construction management for mechanical projects ranging from equipment installation to complete boiler retrofits.

Braun Engineering Associates, P.C.
299 Edison Avenue
West Babylon, NY 11704

BEA BRAUN ENGINEERING ASSOCIATES

Telephone: (516) 694-6509
Fax: (516) 694-6509
Chief Executive Officer: Robert J. Braun, P.E.
International Sales Manager: Robert J. Braun, P.E.
Domestic Offices: OLD LYME, CT: 7 Stonewood Drive, Old Lyme, CT 06371 TEL. (203) 434-9124

Braun Engineering Associates is a fully integrated engineering firm providing mechanical and electrical power engineering services to utility and industrial clients. Project capabilities include engineering design and operations management of central heating plants, cogeneration installations, district heating and cooling systems. Our power system designs provide full spectrum services including in house pipe stress, thermal and fluid dynamic systems analysis with complete CAD capability. In addition to professional registration, BEA personnel hold several High Pressure Boiler Operating Engineers and Refrigeration Systems Operator Licenses and Unlimited Horsepower Diesel Licenses, and several national plant engineering operating and maintenance certificates.

Product/Service	Description
Architecture/Engineering	
Facility Construction	Steam plants, steam distribution systems, power generation, central chilled water and high temp. hot water plants, heat recovery, air pollution control, feasibility studies, electric utility interconnection, electric power cogeneration.
Facility Operation	Power plant operation, operations and maintenance management, facility planning, surveys, energy management.

Brown and Root, Inc.
4100 Clinton Dr.
Houston, TX 70020-6299

Brown&Root, Inc.

Telephone: (713) 676-3011
Telex: (713) 676-4109
Fax: (713) 676-4191
Chief Executive Officer: T. Louis Austin
International Sales Manager: T. Smith, III
Domestic Offices: MOBILE, AL; LONG BEACH, CA; SAN RAMON, CA; WASHINGTON, DC
International Offices: ENGLAND; MEXICO; VENEZUELA; BRAZIL; AUSTRALIA; THE NETHERLANDS; NORWAY; PHILIPPINES; CHINA; EGYPT; CANADA; INDONESIA; JAPAN; SINGAPORE; MALAYSIA; SAUDI ARABIA; SCOTLAND; BAHRAIN; U.A.E.

Brown & Root and its associated companies form one of the world's largest and most diversified groups of engineering and construction companies. Brown & Root, Inc. was formed in 1914 and has been a wholly-owned subsidiary of the Halliburton Company since 1962. Our growth record is a direct reflection of the reputation we have earned as a leader in the industry, being ranked No. 1 five times and No. 2 five times by Engineering News Record. Our philosophy of work is summarized by the words: Quality, Cost and Schedule. Brown & Root offers a total range of services from preliminary studies, process selection, procurement, construction and operational maintenance and also provides management counseling and guidance in technical, financial, legal and general business matters.

Product/Service	Description
Power Plants	Complete range of services required for design and construction of power plants, including coal fired plants, combustion turbines, diesel generators, oil and gas fired plants, nuclear and cogeneration. Engineered and/or constructed in excess of 10,000 MWe of fossil fired plants.
Mining	Complete range of services required for design and construction of mining facilities including solution mining, underground, and surface mining.

CLI Corporation
430 Park West One
Pittsburgh, PA 15275

CLI CORPORATION
Engineers and Contractors

Telephone: (412) 788-6688
Telex: 510-100-7619
Fax: (412) 788-6690
Chief Executive Officer: David G. Chedgy
International Sales Manager: David G. Chedgy
International Offices: Please contact company headquarters for further information.

CLI Corporation is a major design and construction company in the coal and mineral industry. The Corporation specializes in feasibility studies, definite estimates, engineering and turnkey construction for coal preparation and other mineral processing plants and the associate material handling systems. The Company also produces specialty equipment related to the processing industry. A subsidiary company is also involved in contract operations of mining facilities. The company has internationally recognized coal and mineral processing specialists and a full complement of professional engineers and construction specialists.

Product/Service	Designation	Description
Architecture/Engineering	CLI-1	Conceptual, preliminary and actual design of coal and mineral process plants and material handling system including conveying, crushing, blending and storage.
Coal Mining	CLI-2	Contract operations of mines and processing plants including owner/operator contracts. Major coal processing of contracts of 1200 tph presently under contract.
Facility Construction	CLI-3	Construction of turnkey or negotiated process plants and material handling facilities.
Advanced Utilization	CLI-4	Producer of ultra-low ash and sulfur coal and coal-water-slurries (CWS).

Dominion Energy
Federal Reserve Building
P. O. Box 26532
Richmond, VA 23261



Telephone: (804) 775-5814
Fax: (804) 775-5720, 775-5822
Chief Executive Officer: Ronald H. Leasburg
International Sales Manager: John J. Frank
International Offices: Please contact company headquarters for further information.

Dominion Energy is the cogeneration power development subsidiary of Dominion Resources, Inc., a $10 billion holding company headquartered in the capital of the state of Virginia. Dominion Resources owns and operates one of America's largest electric utilities, Virginia Power, which serves more than 1.7 million homes and businesses, over 32,000 square miles, with 12,000 megawatts in electric generating capacity. Dominion Energy, established in 1987, has interests in United States projects utilizing various technologies and fuel sources that total more than 2,000 megawatts. It brings full-service capability to the growing global market.

Product/Service	Description
Facility Construction	Dominion Energy offers full construction services, including project design, and legal and environmental permitting. It brings the combined experience and expertise of a staff that has overseen the creation and modification of some of America's most technologically advanced generating systems.
Facility Operation	After construction Dominion Energy offers full operations services.
Financing	Through its Dominion Resources, Inc., parent company, Dominion Energy has ongoing working relationships with more than 80 investment and commercial banks in the United States, Europe and Asia. It has secured financing for major energy projects around the United States.

Energy Systems Associates
15991 Red Hill Avenue, Suite 110
Tustin, CA 92680



Telephone: (714) 259-9520
Fax: (714) 259-0372
Chief Executive Officer: Bernard P. Breen
International Sales Manager: John H. Pohl
Domestic Offices: PITTSBURGH, PA: 1840 Gateway Three, Pittsburgh, PA 15222 TEL. (412) 392-2390; LAGUNA HILLS, CA: 24422 Avenita de la Carlota, Suite 290, Laguna Hills, CA 92653 TEL. (714) 770-0802
International Offices: AUSTRALIA: Lindsay Juniper, 41 Hilda Street, Corina, Queensland 4075 TEL. 61-07-379-2718

Energy Systems Associates (ESA) is an engineering consulting and construction firm. ESA provides expert services to the fuel, utility and industrial process industries. The services provided include: measurement of emission and performance evaluation of fuel properties and the effect of these properties on performance, control of pollutant emissions and modification and construction of combustion and boiler systems. ESA services have been provided to Australia, Brazil, Canada, Finland, Republic of Korea and Taiwan (R.O.C.).

Product/Service	Description
Measurements	ESA makes field measurements of all gases, including boiler profiles, solids, temperatures, heat fluxes, velocities, deposits which affect combustor performance and pollutant emissions.
Fuels Evaluation	ESA evaluates the properties of fuels and predicts and controls boiler performance for coal transport and storage, coal grinding, flame stability, slagging, fouling, burnout corrosion, erosion, ESP and baghouse performance, and emission of pollutants.
Emission Control	ESA designs, modifies and installs equipment to meet emission control limits.
Modification and Construction	ESA designs, modifies and constructs combustion equipment to meet performance and emission goals.

Foster Wheeler Corporation
Perryville Corporate Park
Clinton, NJ 08809-4000

Telephone: (201) 730-4000
Fax: (201) 730-4360
Chief Executive Officer: L. E. Azzato
International Sales Managers: B. P. Stephan, I. G. Lutes
Domestic Offices: ATLANTA, GA; BOSTON, MA; CHARLOTTE, NC; CHICAGO, IL; DENVER, CO; HOUSTON, TX; KANSAS CITY, MO; LOS ANGELES, CA; NEW ORLEANS, LA; NEW YORK, NY; PHILADELPHIA, PA; PITTSBURGH, PA; WASHINGTON, DC; AND WINTER PARK, FL
International Offices: AUSTRALIA: TELEX 152838 REWOP AA; CANADA: TELEX 055-60042; CHINA: TELEX 210396 REWOP CN; COLUMBIA: TELEX 396-43254 REWOP CO; ENGLAND: TELEX 851-263984; FRANCE: TELEX 842-210 782; HONG KONG: TELEX 37512 FWAL HX; ITALY: TELEX 843-310548; JAPAN: TELEX 2323192; NETHERLANDS: TELEX 844-34264; NIGERIA: TELEX 22365 FOSWLD NG; SINGAPORE: TELEX RS 39292 FWINTL; SPAIN: TELEX 83122275; contact the main office for further information.

Foster Wheeler Corporation is an engineering, manufacturing, construction, real estate development and service organization with 23 subsidiaries operating worldwide. Founded in 1927, it is currently one of the world's largest engineering and construction organizations. International activities are conducted by affiliates in England, France, Italy, Spain, and Canada. U.S. based industrial subsidiaries supply diversified engineering technologies and allied equipment. Foster Wheeler Energy Corporation, a major United States subsidiary, designs, fabricates, maintains, manufactures, and constructs steam generating equipment for electric utilities and industry. This Foster Wheeler subsidiary furnishes condensers, feedwater heaters, and other major auxiliary equipment for coal, oil, and gas-fired installations in the United States and abroad. Foster Wheeler's application of alternate energy sources have advanced the state of the art. Current projects involve refuse-to-energy plants, the cogeneration of industrial steam and electric power, a proprietary sludge drying process and high technology heat recovery equipment.

Product/Service	Description
Advanced Utilization	Foster Wheeler Development Corp., Livingston, NJ (201) 535-2300
Architecture/Engineering (A&E)	Foster Wheeler USA Corp., Clinton, NJ (201) 735-4770
Boiler Equipment	Foster Wheeler Energy Corp., Clinton, NJ (201) 730-4310
Coal Derivatives	Foster Wheeler USA Corp., Clinton, NJ (201) 730-4606
Facility Construction	Foster Wheeler Constructors, Clinton, NJ (201) 735-5076
Facility Operation	Foster Wheeler Management Operations, Ltd., Houston, TX (713) 872-6911
Financing	Foster Wheeler Power Systems, Clinton, NJ (201) 730-4000

H. B. Zachry Company
P.O. Box 21130
San Antonio, TX 78221-0130

Telephone: (512) 922-1213
Telex: 76-7426
Fax: (512) 927-8060
Chief Executive Officer: H. B. Zachry
International Sales Manager: Robert E. Hood
International Offices: Please contact company headquarters for further information.

H. B. Zachry Company is a world leader in the construction industry with over sixty-five years of building a wide variety of construction projects. Including power, process, transportation, mining/minerals (lignite, fluorspar and "frac sand"), hydraulics/water works, general industrial/manufacturing, commercial, maintenance, and pipeline. Projects have been constructed in Alaska, Bangladesh, Canada, Chile, Greece, Kwajalien, Oman, Peru, Puerto Rico, Saudia Arabia, Sinai Desert, South Africa, Spain, and Thailand. By accommodating the owner's preference of design firms the Company has good relations with many engineering firms. The company also functions as consortium manager to provide complete design, construction, financing, and maintenance responsibilities.

Product/Service	Description
Contract Mining	Topsoil requirements, hydrologic balance, disposal of excess soil, coal or mineral recovery, mineral processing waste banks, environmental protection, pipelines, backfilling & grading, revegetation, Class I-III roads, special conditions.
Facility Construction	Loading facilities, storage and stockpile facilities, sheds, shops and other buildings, water treatment and water storage facilities, settling basins and impoundments, coal processing and other waste disposal areas, roads, railroads and other transport facilities.
Facility Operations & Maintenance	Operations plan, air pollution control plan, fish & wildlife plan, reclamation plan, diversions, protection of public parks & historic places, use of public roads.

Harris Group Inc.
P.O. Box 3855
Seattle, WA 98124

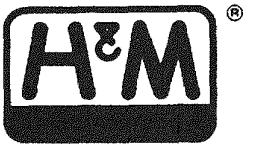


Telephone: (206) 382-7410
Telex: 15-2917
Fax: (206) 382-9645
Chief Executive Officer: Robert M. Harris, Chairman
International Sales Manager: John D. Logsdon
Domestic Offices: PORTLAND, OR: 1750 N.W. Front Avenue, Portland, OR 97209 TEL. (503) 228-7200; BELLINGHAM, WA: 1111 Cornwall Avenue, Bellingham, WA 98225 TEL. (206) 734-4944; APPLETON, WI: 4321 W. College Avenue, Appleton, WI 54914 TEL. (414) 749-4600
International Offices: CANADA: Fourth Floor, 233 West 1st Street, North Vancouver, B.C. V7M 1B3 TEL. (604) 985-6485

Backed by more than four decades of engineering experience, Harris Group Inc. has become widely regarded as a leader in engineering design for industrial situations. Our staff of approximately 500 includes professionals in all of the major engineering disciplines. Harris Group Inc. has the capability and capacity to handle both large and small projects from the very earliest stages through to the completion of construction. We routinely provide services for, but not limited to, the steam and metallurgical coal, cogeneration, and coal transshipment industries. Areas of expertise offered in coal handling are size reduction; screening and classification; blending and sampling; storage and reclamation; unit train and ship loading/unloading; conveying and transshipment.

Product/Service	Description
Specialized Coal Handling	Harris Group Inc. staff members have accumulated many years of experience in coal handling in the United States, Canada, and Europe. Services provided include project management, planning, engineering permitting, construction management, and startup and training assistance. Typical systems provided are: export terminals complete with dock facilities; automated stacking and reclaiming; shiploading and unloading with enclosed tubular conveyor galleries; overland conveyor systems; state-of-the art transshipment facilities with totally enclosed storage and conveying; general coal handling from mine mouth to preparation plant and beyond.

Henkels & McCoy, Inc.
985 Jolly Road, P.O. Box 950
Blue Bell, PA 19422-0900



Telephone: (215) 283-7600
Fax: (215) 283-7587
Chief Executive Officer: Paul M. Henkels
Kenneth L. Rose, President
International Sales Manager: W. Bruce App, Henkels & McCoy, Inc.
Vector Communications Division, 8530 Cinderbed Road, Suite 1000, Newington, VA 22122 TEL. (703) 550-0450
Ian H. Sargent, Division Manager, Engineering Division
Domestic Offices: ORELAND, PA; RISING SUN, MD; NEW CASTEL, DE; BURLINGTON, NJ; PORTLAND, OR; YORK, PA; AURORA, CO; LEWISVILLE, TX; ELKHART, IN; OXFORD, MA; NEWINGTON, VA; RICHMOND, VA; TAMPA, FL; FONTANA, CA
International Offices: Please contact International Operations Division for further information.

Henkels & McCoy is an international engineering, construction and support services company. Services include most engineering disciplines, project support services, construction or construction management, and training. Applications include industrial and commercial facilities and transmission and distribution systems for electric power, telecommunications and data, and energy products. We provide design/build turnkey construction. We act as either prime contractor or subcontractor to manufacturers, utilities, government agencies, or other contractors. We have served client organizations in Canada, South America, Africa, the Middle East and Asia. Responsiveness, flexibility and product quality characterize our customer service philosophy. "PERFORMANCE has built our business...."

Product/Service	Description
Architecture/Engineering	Our Engineering Division is a multi-disciplined organization serving the industrial, utility, and communications markets for over 60 years. We have engineered major new plants and facilities and have rehabilitated others for a variety of applications. Each client's needs are addressed on a specific project basis. While developing the project's plans and specifications we design all pertinent systems, select appropriate equipment and incorporate operating considerations. Typical projects include the electrical, mechanical, civil/structural, and general site engineering disciplines supported by our architectural capabilities, as needed, for offices, laboratories, warehouses, etc.

(Continued on next page)

Henkels & McCoy, Inc. (Continued)

Corrosion Control

The Corrosion Control Department within the Engineering Division provides comprehensive services for underground, above ground and marine structures, tanks and pipelines. We perform corrosion surveys and stray current analysis, monitor existing systems, audit corrosion control programs, design cathodic protection systems, evaluate reinforced concrete, and evaluate/design protective coating systems.

PERFORMANCE has built our business...

ICF Kaiser Engineers
1800 Harrison Street
Oakland, CA 94612

ICF KAISER ENGINEERS

Telephone: (415) 268-6000
Telex: 335326
Fax: (415) 268-5355
Chief Executive Officer: Raymond List, President
William Stitt, Chairman
Domestic Offices: PITTSBURGH, PA: Four Gateway Center, 12th Floor, Pittsburgh, PA 15222 TEL. (412) 281-8121, FAX (412) 281-8145
International Offices: AUSTRALIA: AMP Building, 140 St. George's Terrace, P.O. Box 7142 - Cloisters Square, Perth 6000 TEL. 61-9 327-5211, TELEX AA 94559; PORTUGAL: Avenida Marques de Tomar, 44-5, 1000 Lisbon TEL. 011-351-1 734074, TELEX 42656-Protec P, FAX 351-1 777-189

ICF Kaiser Engineers is an international engineering and construction firm, headquartered in Oakland, California. The company provides services to private and public sector clients involved with transportation, advanced technology, environmental, industrial and other infrastructure projects. The firm's 2500 professionals are expected to generate more than $380 million in revenues this fiscal year (ending February 28, 1990).

Product/Service

Architecture/Engineering

Facility Construction

Interstate Equipment Corporation
300 Mt. Lebanon Blvd.
Pittsburgh, PA 15234

Telephone: (412) 563-5556
Fax: (412) 563-6741
Chief Executive Officer: James F. Vogel
International Sales Manager: Leo J. Vogel, Jr.
International Offices: INDIA: B.R. Vaderaa, 9-D Sagar Apt., 6 Tilak Marg, New Delhi 11001 TEL. 386-489

Since 1903, Interstate Equipment Corporation has been engaged in the design, manufacture and installation of Aerial Tramway (Ropeway) Systems for the mining industry. The company has always had a strong marketing effort directed at the coal and thermal power industries. Primarily the Aerial Tramway Systems have served the coal industry in the transport of coal from the mine to the preparation plant and in many cases the transport of the preparation plant rejects to the refuse area.

Product/Service	Description
Coal Transport	The company offers complete turnkey services of all types of Aerial Tramway Systems, including units to convey coal and mine refuse. The range of service includes feasibility studies, design, manufacturing and installation on a worldwide basis. Aerial Tramways have proven themselves over the years a low cost form of transportation, particularly in rough terrain.
Facility Construction	
Transportation Equipment	
Mining Equipment	

K-Fuel Partnership
1999 Broadway/Suite 2505
Denver, CO 80202

Telephone: (303) 293-2992
Telex: 550233 T VENNERS DVR
Fax: (303) 293-8430
Chief Executive Officer: Ted Venners
International Sales Manager: Ted Venners
Domestic Offices: GILLETTE, WY: K-Fuel Processing Facility and Laboratory, P.O. Box 1777, Gillette, WY 82717 TEL. (307) 687-1013, FAX (303) 687-1635

K-Fuel Partnership was formed in 1984 to market and license the K-Fuel technology worldwide. On-going research and development, funded by the Partnership, has taken the technology through the bench-top, pilot plant, and full-scale demonstration facility phases, and into commercialization at the Fort Union Mine near Gillette, Wyoming. The Gillette facility includes a state-of-the-art laboratory, where feedstock evaluation and process and product analysis allows for optimum plant operation and a custom-made end product.

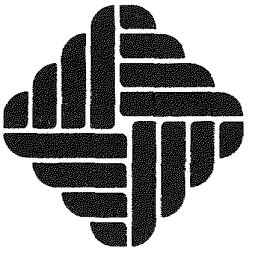
Product/Service	Description
Advanced Utilization	Low-rank feedstocks, and particularly subbituminous coals and lignites, require derating of capacity or costly equipment modifications in order to meet boiler requirements and ever-changing environmental restrictions. These feedstocks are difficult to handle and expensive to transport because of their high moisture content and combustibility. Using a proven, patented, advanced coal beneficiation technology that economically upgrades low-rank feedstocks, the high-Btu, low sulfur, low moisture, environmentally acceptable K-Fuel product addresses those problems.
Coal Technology	The K-Fuel process, a proven patented, advanced coal beneficiation technology that economically upgrades a variety of low-rank feedstocks, provides the utility or industrial user with a high Btu, low sulfur, low moisture, environmentally acceptable solution to their fuel requirements. This technology is available for licensing throughout the world.
Coal Industry	Low-rank coal reserves are abundant throughout the world; however, users prefer high-Btu coal for their boilers. The K-Fuel process, a proven patented, advanced coal beneficiation technology that economically upgrades low-rank coals, providing a high-Btu, low sulfur, low moisture, environmentally acceptable product. This technology is available for licensing throughout the world.

(Continued on next page)

K-Fuel Partnership (Continued)

Coal Exporters	K-Fuel, produced using a proven, patented, advanced coal beneficiation technology that economically upgrades a variety of low-rank feedstocks, is a viable, high-btu, low sulfur, low moisture energy source for utility and industrial users. Produced to meet the user's boiler specification and having stable handling and storage characteristics, K-Fuel is competitively priced in the coal market.
Facility Construction	The K-Fuel process, a proven, patented, advanced coal beneficiation technology that economically upgrades a variety of low-rank feedstocks, provides the utility or industrial user with a high-Btu, low sulfur, low moisture, environmentally acceptable solution to their fuel requirements. K-Fuel Partnership can provide the technology license, construct the site-specific facility, train personnel, and/or operate the facility.

Mountain States Mineral Enterprises, Inc.
4370 South Fremont Avenue
Tucson, AZ 85714-1629



Telephone: (602) 792-2800
Telex: 510-600-7949
Fax: (602) 294-3841
Chief Executive Officer: Edward S. Frohling
International Sales Manager: Edward S. Frohling
Domestic Offices: ELKO, NV: 174 W. Idaho Street, Elko, NV 89801 TEL. (702) 753-8510, FAX (702) 753-8511

Mountain States Mineral Enterprises, Inc. (MSME) established headquarters in Tucson, AZ, USA, in 1969 to provide engineering services to the mining industry of the Southwest United States and Northern New Mexico. Today, MSME serves the entire mineral industry worldwide, specializing in the design and construction of process plants. MSME offers a complete range of services from sampling and analysis to process design, engineering, construction, start-up, and various proprietary technologies for minerals benefication. MSME staff members have extensive background in the design and operation of sophisticated systems and process plants for the recovery of a wide range of minerals.

Product/Service	Description
Engineering/Construction	MSME provides services that include mine planning, feasibility studies, flowsheet development, pilot plant testing, conceptual and detail engineering, procurement, construction, and start-up assistance. These services can be provided for mineral materials handling systems, plant retrofitting, revamping, and new plant design. MSME designs and manufactures heavy media systems, the moving belt separator, and an ultrasonic device for cleaning mineral surfaces, and for making and breaking of emulsions.

The M.W. Kellogg Company
Three Greenway Plaza
Houston, TX 77046-0395



The M.W. Kellogg Company

Telephone: (713) 960-2000
Telex: 166385 MWKHOC
Fax: (713) 960-2032
Chief Executive Officer: Donald C. Vaughn, President
International Sales Manager: J. Albert Stanley, Senior Vice President of Worldwide Sales
Domestic Offices: DARIEN, CT; WASHINGTON, DC
International Offices: ENGLAND: M.W. Kellogg Limited, The M.W. Kellogg Building, Stadium Way, Wembley, Middlesex, HA9 OEE TEL. 44-1-903-8484; BRITISH WEST INDIES: Cayman Islands; ARGENTINA: Buenos Aires; SINGAPORE; PEOPLE'S REPUBLIC OF CHINA: Beijing; INDONESIA: Jakarta; MALAYSIA: Kuala Lumpur

The M.W. Kellogg Company, an international, technology-based subsidiary of Dresser Industries, Inc., is a world leader in the engineering, procurement, construction and commissioning of chemical, petrochemical, fertilizer, gas processing, refining, and computer integrated manufacturing projects. Additionally, Kellogg provides operations and maintenance capabilities. Kellogg is also on the forefront of clean fuels technology with the acquisition of the KRW coal gasification process and development of clean air technology. The company has completed more than 3,000 major projects and many smaller projects worldwide.

Product/Service	Description
Coal Gasification	Kellogg's KRW coal gasification process is capable of operating at high conversion on a wide range of coals. Feeds ranging from lignites and brown coal to high and low volatile bituminous coal have been tested in the Waltz Mill, PA pilot plant using both air and oxygen as oxidants and limestone and dolomite as in-bed sorbents for sulfur. The process can be used to produce low- or moderate-BTU gas for synthesis or for power generation. Hot gas clean-up using Zinc ferrite yields low SOx emissions, and low-BTU gas yields low NOx in combined cycle power plants.
Pressurized Circulation Fluid Bed Combustion	Kellogg's PCFBC processes pulverized coal and limestone or dolomite in a high velocity reactor, which completely combusts the coal while yielding very low SOx and NOx emissions. The pressurized flue gas is expanded to produce power in a combined cycle mode. The sorbent is fully oxidized in the reactor, eliminating subsequent treatment of the ash and spent sorbent for disposal. The technology is a low-cost alternative for cogeneration and power applications.
Flue Gas Desulfurization	Kellogg's flue desulfurization technology utilizes a limestone sorbent in a horizontal scrubber. The technology has been proven in commercial operation on large utility boilers feeding both high and low sulfur U.S. coals. The process features high sulfur removal (greater than 90%) and high calcium utilization. Magnesium or dibasic acid addition is often used to enhance the system. A special feature of the horizontal Weir scrubber is both low flue gas pressure drop and low sorbent circulation, resulting in significant operating advantages.
Design, Procurement, Construction and Plant Services	Kellogg offers EPC capabilities as well as operations and maintenance services on a worldwide basis.
Research and Development Services	Kellogg has bench-scale and pilot plant facilities for the development and testing of coal in gasification and combustion modes. Kellogg's coal lab allows the analysis of coal and ash properties. The company can also prepare design studies for a wide range of process and power applications based on the specific coal properties.

Oglebay Norton Company
1100 Superior Ave.
Cleveland, OH 44114

Telephone: (216) 861-3300, (216) 861-8707
Telex: 62836077 ONCO-CLEVE
Fax: 216-861-2863
Chief Executive Officer: Renold D. Thompson
International Sales Manager: J. Douglas Loughead

Minerals, lake transportation and manufacturing are the major areas in which Oglebay Norton serves steelmakers, utilities, chemical and glass producers, manufacturers and other basic industries. Produces Ohio No. 8 Seam Coal (Steam) with daily production capabilities of 4000NT. Deep Mine located on NS Railroad at St. Clairesville, Ohio. Twelve thousand contiguous acres of coal reserves located in Boone County, WV. Five seams with average quality being 12,500 BTU's and 1% sulfur. Production is scheduled for fourth quarter 1989.

Product/Service	Designation	Description
Coal Mining	Ceredo Dock	Barge loading facility located near Huntington, WV on the Ohio River. Jointly served by CSX and NS railways (unit train capable) with annual capacity of 8,000,000 tons.
Coal Transport		
Facilities Construction	Licking River Terminal Co.	Barge loading facility located near Cincinnati, OH. Unit train capable and served by the CSX railway. Annual capacity of 8,000,000 tons.
Facilities Operation	Columbia Transportation Division	Offers a full range of 13 lake carriers to handle bulk materials on the Great Lakes.

Porta-Kamp Houston
P.O. Box 7064
Houston, TX 77248

Telephone: (713) 674-3163
Telex: 790-221
Fax: (713) 674-4844
Chief Executive Officer: Ken R. Mills, President
International Sales Manager: William H. Bigelow, Vice President

Porta-Kamp is a Houston based International Corporation founded in 1955 to manufacture housing for personnel operating in remote areas of the world. Porta-Kamp currently operates approximately 500,000 square feet of enclosed floor space on 85 acres, all in the Greater Houston area. Porta-Kamp serves the domestic and international construction, oil, geophysical, pipeline, mining, drilling industries, various government entities and many foreign governments. We have produced over 55,000 units and shipped them to 134 countries. We offer a simple, high-quality product with the maximum value at a minimum cost in the shortest possible time.

Product/Service	Description
Facility Construction	Relocatable and semi-permanent camp facilities, including housing, Kitchen-Diner, Bath-Toilets, Laundries, Offices, etc. Helicopter Lift Units, specially designed light weight units for helicopter lift to extremely remote areas. Pre-Fabricated and Modular Homes, for family accommodations at permanent remote locations. Custom rig-up of trucks and related construction equipment, and world wide distribution of specialty truck parts and equipment.

Pyropower Corporation
5120 Shoreham Place
San Diego, CA 92122

Telephone: (619) 458-3000
Telex: 506-170
Fax: (619) 458-9132
Chief Executive Officer: Eric J. Oakes
International Sales Manager: Callixtus J. Aulisio

Pyropower Corporation, a subsidiary of A. Ahlstrom Corporation, provides product development, engineering, design, procurement, construction, start-up, operations, and after market services for the AHLSTROM PYROFLOW circulating fluidized bed boilers. These boilers are for steam and electricity generation using solid fuel including, high moisture, high ash and high sulfur fuels in an environmentally safe manner. Successful on-schedule construction and reliable operating experience with PYROFLOW has been thoroughly demonstrated with over 75 units in commercial operation or under construction worldwide.

Product/Service	Description
Boiler Equipment	Pyropower offers complete fluidized bed boilers with auxiliary equipment plus additional balance of plant equipment.
Facility Construction	Pyropower offers complete construction of fluidized bed boilers with auxiliary equipment plus additional balance of plant equipment.
Facility Operation	Pyropower provides complete services to operate circulating fluidized bed boiler plants.
Financing	Pyropower provides full capabilities to arrange project financing for power projects.
Advanced Utilization	Pyropower is developing advanced utilization of solid fuel fired boilers such as pressurized fluidized bed boilers.

Qualtec, Inc.
11300 U.S. Highway 1, Suite 500
Palm Beach Gardens, FL 33408

Telephone: (407) 775-8300
Fax: (407) 775-8301
Chief Executive Officer: Roger A. Eatman, President
International Sales Manager: Fred Trice, Director, Special Projects
Bob Bartz, Director, Technical Services

QUALTEC, INC. is a subsidiary of FPL Group, Inc. (the holding company which also owns Florida Power & Light Co.). Established in 1985, QUALTEC's utility-related businesses provide specialty support services to U.S. and international electric utilities, independent power producers, and architectural/engineering firms.

Product/Service	Description
Facility Operation Facility Construction	Project management; cost/estimating; planning & scheduling systems; construction management; professional and technical contract labor; power plant equipment inspection, testing, maintenance and labeling; training; procedures development; operations audits; maintenance/outages/backfit services.

Riley Stoker Corporation
5 Neponset Street, Box 15040
Worcester, MA 01615

Telephone: (508) 852-7100
Telex: 920428
Fax: (508) 852-7548, (508) 852-7558
Chief Executive Officer: H. Kerner Smith
International Sales Manager: David A. Harris
International Offices: BELGIUM: Chaudronneries Pierre Broubon, Rue de la Station, 41 bis, 4341 AWANS TEL. (041) 63 88 20 21 22; AUSTRALIA: Clyde-Riley Dodds Pty., Ltd., 123 Gotha Street, Fortitude Valley, Queensland 4006 TEL. (07) 854 1522; FRANCE: FAMA, 8 Rue d'Athenes, 75009 Paris TEL. 42 82 93 31; JAPAN: Mitsui Engineering & Shipbuilding Co., Ltd., 6-4 Tsukiji 5-chome, Chuo-ku, Tokyo 104; COLOMBIA: Representaciones Internacionales Ltda., P. O. Box 949, Medellein TEL. 248-51-89 or 246-56-94; SWITZERLAND: Centrex S.A., 24 Avenue Dumas B P 305 1211, Geneva 25 TEL. (022) 46 82 26; EGYPT: Arab Engineering & Distribution Co., 2 Saraya El Korba Street, Garden City, P. O. Box 901, Cairo; INDIA: Ideal Enterprises, 402 Hemkunt Tower, 98 Nehru Place, Post Box 4411, New Delhi-110019 TEL. 6415435; ISRAEL: PETCO International Ltd., 55 Shderot Bialik, Ramat-Hashron TEL. (972) 3-5401812; PAKISTAN: Qamar Traders, P. O. Box 1014, Ikram Building, Outside Akbari Gate, Lahore-8 TEL. 62336 or 56936; TAIWAN: Taiwan Development Co., Ltd., 3rd Floor, 5 Tsing Tao East Road, Taipei R.O.C. TEL. (886) 2-3912366; VENEZUELA: Eduardo Calcano & Cia., C.A., Centr Plaza, Torre B-Penthouse, Avenida Francisco de Miranda, Apartado de Correos 613071 Chaca, Caracas 1060-A

Riley Stoker Corporation was founded in 1913. Since 1981 the company has been a subsidiary of Ashland Oil, Inc. Riley designs, manufactures and constructs traditionally-fired boilers, fluidized bed combustion boilers, and waste-to-energy systems in capacities from 222,675 to 2,086,188 kg/steam/hr (50,000 to 4,600,000 pounds of steam per hour).

Product/Service	Description
Boilers Stokers Pulverizers Construction	Riley manufactures a line of coal pulverizers, burners for coal, gas and oil, and stokers for all types of coal, cellulose fuels and waste. The company provides a range of services for boiler and fuel burning equipment, including inspections, repairs and maintenance. It has its own construction capabilities for complete boiler erection as well as modifications and rebuilds. Riley operates a center for fuel burning research, and a manufacturing plant in Erie, PA with easy access to water, rail truck and air shipping.

Schmidt Associates, Inc.
7333 Fair Oaks Road
Cleveland, OH 44146

Telephone: (216) 439-7300
Fax: (216) 232-9939
Chief Executive Officer: Charles M. Schmidt
International Sales Manager: George C. Repko
International Offices: Please contact company headquarters for further information.

Schmidt Associates, Inc. is an employee-owned professional engineering corporation comprised of dedicated, experienced engineers capable of performing a wide range of engineering and consulting services. These services include mechanical, electrical, structural, and chemical abilities, with vast experience in the industrial boiler market from studies and retrofitting of all types of existing boiler installations to the complete installation of new facilities encompassing any or all new technologies required in the industrial field today for not only technically successful operations, but also economical success as well. Schmidt Associates, Inc. has specialized in central utilities services for industrial, institutional, and governmental plants including studies, tests, application, and installation of new technologies in industry today.

Product/Service	Description
Advanced Utilization	Conducted extensive research and design work for the government on advanced coal utilization techniques for industrial boilers including coal-oil and coal-water mixtures, slagging coal combustors and fluidized bed boilers.
Architecture/Engineering	Expertise in coal utilization from conception of idea to detailed design.
Boiler Equipment	Specify appropriate equipment for clients.
Facility Construction	Detailed design of numerous coal facilities from point of coal receipt to exit of gases from stack. Conduct on-site inspection of facilities while under construction.

Ultrasystems Engineers and Constructors Inc.
16845 Von Karman Avenue
Irvine, CA 92714

Telephone: (714) 863-7000
Telex: 69-2356
Fax: (714) 852-8863
Chief Executive Officer: John Coyle
International Sales Manager: Joaquin Perez

Ultrasystems Engineers and Constructors Inc. (UEC) is a subsidiary of Hadson Power Systems. UEC provides engineering, construction, and turnkey services for a wide range of power and energy projects. Coal, gas and biomass fueled power plants in the range of 1-150 MWe have been successfully completed. UEC also offers several proprietary process technologies in coal and gas treatment. The Power Systems Group is adept and willing to participate in projects from initial development to turnkey engineering and construction through operation.

Product/Service	Description
Coal Coking	Mansfield Carbon Products coal coking and gasification units utilize simple traveling grate stoker furnaces to produce chemical quality coke and gas in a continuous process. Combined heat recovery units can provide economical process steam for a variety of applications.
Gas Desulfurization	The Hiperion gas desulfurization process utilizes a low energy catalyst to remove hydrogen sulfide from waste gas streams. The sulfur produced can then be converted into a chemical grade sulfur product with a small additional capital investment.
Gas Reforming	The Rentec process reforms waste gas streams to create low ash diesel fuels while eliminating flare problems. Even recovery of landfill gas streams may prove economical utilizing this process.
Engineering	A full range of engineering services is available including civil, structural, mechanical, instrumentation and electrical specialties. Complete support group services are also offered and include purchasing, expediting, scheduling and project and construction management.
Construction	Merit shop construction services are independently marketed for power and process related projects in the $1-60 million dollar range. Experienced staff construction managers and lead personnel utilize locally trained manpower for project execution.

United Engineers & Constructors Inc.
Stearns-Roger Division
P. O. Box 5888
Denver, CO 80217

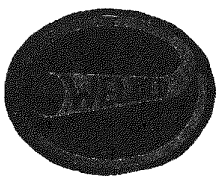
United Engineers & Constructors
A Raytheon Company

Telephone: (303) 758-1122
Telex: (303) 692-2208
Chief Executive Officer: Gunnar E. Sarsten
International Sales Manager: Lawrence J. Weber
Domestic Offices: PHILADELPHIA, PA: UE&C, 30 South 17th Street, P. O. Box 8223, Philadelphia, PA 19101 TEL. (215) 422-3000; BOSTON, MA: UE&C, 100 Summer Street, Boston, MA 02110 TEL. (617) 338-6000; CHICAGO, IL: UE&C, Opus West II, 1411 Opus Place, Downers Grove, IL 60515 TEL. (312) 960-9200; WEST PALM BEACH, FL: UE&C, 7289 Garden Road, P. O. Box 15348, West Palm Beach, FL 33416 TEL. (407) 844-7900
International Offices: ENGLAND: Stearns-Catalytic International Ltd., C.I. Tower, St. George Square, High Street, New Malden, Surrey, KT3 4HH TEL. 1-949-0055.

Stearns-Roger has been serving the needs of the mining, metallurgical and inorganic chemicals industries since 1885. Today, as a Division of United Engineers & Constructors, we offer the broadest technology base of any U.S. engineering, construction, and maintenance firm. UE&C is at work around the world on more than 1,000 projects of varying size and scope. Our coal experience ranges from conceptual engineering studies to coal mining and handling facilities design; coal processing, beneficiation, and gasification projects; and construction and operation of coal conversion plants. Our engineering and construction management professionals are available to assist with projects worldwide.

Product/Service	Description
Architecture/Engineering	Complete services from conceptual studies through detailed design.
Facility Construction	Construction Management

Welded Construction Company
26933 Eckel Rd.
P.O. Box 32
Perrysburg, OH 43551



Telephone: (419) 874-3548
Fax: (419) 874-4883
Chief Executive Officer: R. H. Mogg
International Sales Manager: D. W. Thorn

Welded Construction Company has been in the pipeline construction business since 1966, building oil, natural gas and other cross-country pipelines for major transmission companies. We have qualified personnel, equipment, insurance and bonding available for large construction projects.

Product/Service	Description
Facility Construction	Coal Slurry Pipeline Construction

Willbros USA, Inc.
Suite 700, 2431 East 61st Street
Tulsa, OK 74136

Telephone: (918) 748-7000
Telex: 79-6660
Fax: (918) 748-7087
Chief Executive Officer: L. J. Bump
G. L. Bracken, President
International Offices: REPUBLIC OF PANAMA: Edificio Torre Banco Germanico, 8th Floor, Panama 1 TEL. (507) 63-9282, TELEX 3380; NIGERIA: 256 Kofo Abayomi St., P.O. Box 1057, Victoria Island, Lagos, 614877 TELEX 21115; OMAN: P.O. Box 142, Muscat, Sultanate of Oman TEL. 590355, TELEX 5397; UNITED KINGDOM: Provincial House, 62-68 Eden Street, Kingston-upon-Thames, Surrey KT11EJ TEL. (01) 549-4471, TELEX 928172

Willbros USA, Inc. is a subsidiary of Willbros Group, Inc. which provides worldwide construction of pipelines and related facilities, onshore contract rotary drilling, maintenance of pipeline systems, dredging, transportation and pipe coating to the energy industry. Engineering and project management services are also provided to the energy industry, the U.S. Armed Forces and the telecommunications industry.

Product/Service	Description
Energy Transportation	Pipeline and facilities construction. Engineering and project management.

Mining Equipment: Firms providing equipment for underground and surface mining as well as conveying, crushing, sizing, and beneficiation.

AFT, Inc.
200 Public Square
21-3604-K
Cleveland, OH 44114-2375



Telephone: (216) 586-5206
Telex: 6873120
Fax: (216) 586-5448
Chief Executive Officer: Jerry J. Oliver
International Sales Manager: William F. Christensen
Domestic Offices: BRIDGEPORT, NJ: 618 Heron Drive, P.O. Box 339, Bridgeport, NJ 08014

AFT, Inc. is a wholly owned subsidiary of BP America and is involved in the production and marketing of coal fuels that have been beneficiated using AFT's patented SPRAYFLOT™ flotation cells. The company also licenses the technology and participates in joint ventures worldwide. One of the original developers of coal-water slurries, the company is now able to apply its mineral separation technology to the beneficiation of coal waste streams.

Product/Service	Designation	Description
Coal Mining Advanced Utilization	SPRAYFLOT™	The SPRAYFLOT™ flotation cell can be used to effectively reduce ash and sulfur levels in high-ash coal waste streams. The integral part of AFT's unique beneficiation system, it ensures improved separation, selectivity and recovery, when compared to conventional flotation methods.

B. L. Montague Company, Inc.
P. O. Box 5428
Greenville, SC 29606

Telephone: (803) 242-6221
Telex: 570315
Fax: (803) 232-3630
Chief Executive Officer: Bert L. Montague II
International Sales Manager: Richard M. Sickinger
Domestic Offices: GREENVILLE, SC: 303 N. Pleasantburg Drive, Greenville, SC 29607 TEL. (803) 242-6221; SUMTER, SC: 303 East Liberty Street, Sumter, SC 29150 TEL. (803) 775-1102

B. L. Montague Company was founded in 1914 as a provider of equipment and services to the sawmill industry. Since that time B. L. Montague has evolved into a major provider of bulk materials handling systems to the industrial, mining, utility and pulp & paper industries. The company designs, engineers, fabricates (from its own 375,000 sq. ft. fabrication facility) and installs/erects the systems it provides. The company is highly rated by Dun and Bradstreet and has provided single systems valued at $40,000,000.

Product/Service	Description
Architecture/Engineering	Design, engineer and detail bulk materials handling systems for industrial, mining, utility and pulp & paper industries.
Coal Exporters	Design, engineer, fabricate and install conveying systems for load out onto barges/ships.
Coal Mining	Design, engineer, fabricate and install conveying systems from mine mouth to load out.
Coal Transport	Design, engineer, fabricate, and install conveying systems.
Facility Construction	Installation/erection of coal conveying systems at mines, coal terminals, industrial or power plant sites.

Baker Hughes Mining Tools, Inc.
1600 S. Great Southwest Parkway
P.O. Box 531226
Grand Prairie, TX 75053-1226



Telephone: (214) 988-3322
Telex: 163152 BHMTGP UT
Fax: (214) 988-2620
Chief Executive Officer: John A. Alich, Jr.
International Sales Manager: R. W. Thomas
International Offices: SOUTH AFRICA: Kevin Englesman, 14 Griffiths Rd., Jet Park, P. O. Box 8235, Elandsfontein 1406 TEL. 27-11-826-5182, FAX 27-11-823-1939, TELEX 960 740154; ENGLAND: Stan Gasparovski, c/o Exlog, Shirley Avenue, Vale Road, Windsor, Berks SL4 5LF TEL. 44-753-831588, FAX 44-753-831571, TELEX 847504; AUSTRALIA: Sonja Calvert, Cnr. Fison Ave. & Harvey St., P.O. Box 308, Hamilton Central, Qld. TEL. 61-7-268-4044, FAX 61-7-268-4251, TEL. 790 41266; SINGAPORE: Danny McCollum, 19 Keppel Rd., Rm. 0703/0704, Jit Poh Bldg., 0208 TEL. 65-222-6545, FAX 65-224-4723, TELEX RS22835 or 26517 HOSING; CANADA: Lyle Viney, 1012 Greenock Court, Kamloops, B.C. TEL. (604) 372-9112, FAX (604) 828-0221; CHILE: Hughes Tool Company, Huerfanos 801-Of. 430, Santiago TEL. 56-2-39-6972, FAX 56-2-33-7144, TELEX 240315 HTCOS CL

Baker Hughes Mining Tools is the product of a merger of the two best-known names in mining drilling equipment: Reed Mining Tools and Hughes Rotablast. The leading supplier of tools for mining, construction, and exploration drilling, Baker Hughes Mining Tools is part of Baker Hughes Incorporated, the world's leader in drilling technology. The product lines cover every type of mining drilling operation, including blast holes, exploration, water well, shaft drilling, and raise boring. Two manufacturing and engineering facilities, including the 85,000 sq. ft. world headquarters in the Dallas/Ft. Worth area, are fully equipped with the latest computerized design, metallurgy, heat treating, and production tools.

Product/Service	Description
Rota-Blast and Regular Tri-Cone Insert Bits	A full range of sizes from 2 15/16" - 17 1/2" are available. These bits are suitable for drilling all formations from soft to the hardest and most abrasive. Bits are available in both jet and regular configurations.
Rota-Blast and Regular Tri-Cone Tooth Bits	Diameters from 2 15/16" - 17 1/2" are available for fluid or air application, in soft, medium or hard formations.
Pilot Bits	Utilize sealed bearings to extend bearing life and insure longer service performance for the cutting structure. These sealed bearing bits are readily available in common pilot hole sizes: 7 7/8", 9", 9 7/8", 11", 12 1/4", 13 3/4".
Raise Boring Cutters	"WTKC" and "BTKC" models are manufactured to give the highest penetration rates at minimum thrust requirements typical of discs, plus the long life of carbide inserts. Each cutter is designed for optimum performance at 40,000 to 50,000 pounds load, and are easily serviced for extended performance life.
Shaft Cutters	High performance cutters are built for diameter bores from 24" to 120" and larger. A complete line of proven, reliable tooth and insert type cutters is available.
Raise Boring and Shaft Drilling Heads	We revolutionized big hole drilling when we designed and produced the industry's first flat profile raise boring heads. This design innovation provides the lowest possible rotation resistance to improve thrust utilization. Big hole heads are engineered for maximum dependability, flexibility, and to provide a variety of configurations. Head, saddles and stem are all manufactured from high strength steel alloys.

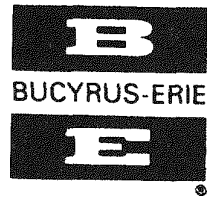
The Bowdil Company
2030 Industrial Place, SE
P.O. Box 20470
Canton, OH 44701-0470

Telephone: (216) 456-7176
Telex: (800) 358-8663
Fax: (216) 456-4625
Chief Executive Officer: C. William Shafer
International Sales Manager: Thomas G. Vignos
International Offices: Please contact company headquarters for further information.

Established in 1924, the Bowdil Company enjoys a well earned reputation for high quality mining equipment, mining components, custom machining, heat treating and metal fabrication. In 1988, Bowdil acquired the Universal Cutting Machine line of The Goodman Corporation. Accordingly, we have become the spare parts source for Goodman Universal Cutting Machine users around the world. Other mining equipment includes cutter chains for any type cutting machine, cutter bars, cutter bar head assemblies, sprockets and bits. Our machining and metal fabrication capabilities embrace a wide range of applications. Heat treating includes both in-atmosphere and vacuum systems depending upon customer requirements.

Product/Service	Designation	Description
Bowdil Cutting Machine	BOW-2500	Available in any voltage, this machine runs smoothly, responds quickly and efficiently, and is both easy for the driver to operate and the maintenance crews to service. Spare parts are readily available since they are machined promptly by The Bowdil Company.
Bowdil Cutter Chains	BOW-40	Cutter chains are designed to fit any type cutting machine. There are several variations of chain which includes the dual-line all lug chain and the lug-link cutter chain for pyramidal type bit, the all-lug wraplok cutter chain and the all-lug roto-bit cutter chain. The solid forged steel trim chain fits all continuous boring machine makes and models. Built up guides on both sides of the chain links assure positive tracking. Because they are made of stainless steel, retaining pins will not corrode or freeze.
Cutter Bar	BOW-281/282	Cutter bars come in lengths of 6'-0" through 17'-0" or can be specifically designed to the mine operators requirements. Because every cutter bar is a fabrication type construction, they are much stronger than the solid bars.
Roller Bearing Cutter Head	BOW-30	With heavy duty roller bearings incorporated in every cutter head, lower noise level, energy savings and reduced maintenance and downtime are obtained. Lower power consumption of the cutting machine is very noticeable.
Sprockets	BOW-14	Fabricated from heat treated alloy steel, these sprockets are available in many different models and various tooth designs. There are clutch, spline and keyed styles, single or double tooth arrangements.
Bits	BOW-1-85/86	The roto-bit is carbide tipped, which rotates while in use. This equalizes wear, expands time between changes, and can be quickly replaced, lowering labor costs. The pyramidal type bit is carbide tipped which, because of its design, construction and special heat treating formula, results in a strong and rigid shank.
Machining and Metal Fabrication	BOW-MMF	Over seventy machines - turret and engine lathes, mills, planers, presses, threaders, grinders, slotters and drills make The Bowdil Company one of the best equipped machine shops in the area. Duplication of matching parts or reproduction from blue prints can turn out identical pieces. Days can be saved by having parts reproduced rather than waiting for repair parts from the factory of origin.
Heat-Treating	BOW-HT	With the installation of a state-of-the-art vacuum furnace, The Bowdil Company is now able to meet the most exacting needs of its customers. Always noted for its high quality and service minded reliability, new emphasis can be placed upon heat treating the most advanced materials.

Bucyrus-Erie Company
1100 Milwaukee Avenue
P. O. Box 500
South Milwaukee, WI 53172



Telephone: (414) 768-4000
Telex: 3797350 BUCYRUS SMIL
Fax: (414) 768-4474
Chief Executive Officer: William B. Winter
International Sales Manager: Douglas E. Blom
Domestic Offices: MEMPHIS, TN: 3057 Tranquility Drive, P. O. Box 161236, Memphis, TN 38186-3880; GILLETTE, WY: Highway 14 North, P. O. Box 1479, Gillette, WY 82716; PHOENIX, AZ: 2501 University Drive, P. O. Box 61020, Phoenix, AZ 85082-1030
International Offices: REPUBLIC OF SOUTH AFRICA: Bucyrus-Africa Pty. Ltd., 415 Wrench Road, P. O. Box 482, Isando 1600 TEL. 27-11-974-2391, FAX 27-11-974-9240; AUSTRALIA: Bucyrus-Pty. Ltd., 9th Floor, G.W.A. House, 10 Market Street, Brisbane, QLD 4000 TEL. 61-7-229-9316, FAX 61-7-229-8165; Bucyrus-Australia Pty. Ltd., 2529 Strathmore Road, Muswellbrook, NSW 2333 TEL. 61-65-434-633, FAX 61-65-425-350; Bucyrus-Australia Pty. Ltd., 99 Kew Street, Welshpool, WA 6106 TEL. 61-9-361-7365, FAX 61-9-362-2652; BRAZIL: Bucyrus-Brazil Ltd., Avenida Professor Magalhaes Penido, 439 Bairro Aeroporto, Belo Horizonte, MG TEL. 55-31-441-2399, FAX 55-31-441-0345; CANADA: Bucyrus-Erie Company of Canada Ltd., 1310 8th Street, Nisko, Alberta T0C 2G0 TEL. 403-955-7771, FAX 403-955-2145; Bucyrus-Erie Company of Canada Ltd., 453 Noel Street, Sept-Iles, Quebec G4R 1M1 TEL. 418-962-7078, FAX 418-962-6128; CHILE: Bucyrus-Chile Ltd., Avda 11 de Septiembre 2155, Coyancura 2241 Of. 61, Providencia, Santiago TEL. 56-2-232-2785, FAX 56-2-232-6234; ENGLAND: Bucyrus-Europe Limited, Becor House, Green Lane, Lincoln LN6 7DL TEL. 56-83-242410, FAX 56-83-241993

Bucyrus-Erie Company is a world leader in the manufacture of surface mining equipment. Founded in 1880 and located in South Milwaukee, Wisconsin, this privately owned company has over the years manufactured dredges, railroad cranes, water-well drills, ordnance equipment, all types of construction machinery, and surface mining equipment. Today, guided by an experienced and progressive management team, Bucyrus-Erie is devoted solely to the mining industry with a complete line of Electric Mining Shovels (9-58cm), Rotary Blasthole Drills (152-445mm), and Walking Draglines (7-175cm). With a worldwide network of sales, manufacturing, spare parts, and service facilities, Bucyrus-Erie is well organized to support the international mining community in over 130 countries throughout the world.

Product/Service	Description
Electric Mining Shovels	Model Numbers: 155BI (9.2cm), 195BI (12.2cm), 290BII (15.3cm), 295II (20.6cm), 395BII (31.3cm), and the 495B (40.5cm). Features include AC static variable frequency control drive systems (ACUTROL), state-of-the-art mechanical designs, diesel/electric applications, and the FASTFIL dipper.
Rotary Blasthole Drill	Model Numbers: 35R (119,051kg), 45R (36,288kg), 47R (40,824kg), 49R (45,360kg), 60R (56,700kg), 61R (58,968kg), 65R (70,308kg), 67R (72,576kg). Features include counter rotating crawlers, chainless pulldown, angle drilling, automatic drilling, and one-man operation.
Walking Draglines	Model Numbers: 380W (12.2cm), 680W (19.9cm), 1260W (30.6cm), 1300W (35.9cm), 1370W (51.2cm), 1570W (61.2cm), 1570WS (70.3cm), 1670W (76.5cm), 2570W (107.1cm), 3270W (148.1cm). Features include modular designs, AC static drives (ACUTROL), pressurized tubular structures, standardized drive components, and the High Production System Buckets (H.P.S.).

EIMCO Coal Machinery Inc.
2030 Pleasant Valley Road
P. O. Box 99 Fairmont, WV 26554

EIMCO Coal Machinery Inc.

Telephone: (304) 363-7700
Telex: 62895344
Fax: (304) 363-1141
Chief Executive Officer: Larry G. Marteney, President
International Sales Manager: Danny Coppinger, VP Field Operations
International Offices: Please contact company headquarters for further information.

EIMCO Coal Machinery Inc. offers the most diverse and comprehensive line of coal machinery in the industry with five major product lines of equipment and over thirty different machine models. Alternative parts for other OEM suppliers are also manufactured. International sales inquiries for equipment can be addressed through the Corporate Headquarters.

(Continued on next page)

EIMCO Coal Machinery Inc. (Continued)

Product/Service	Description
Drum Miners	Model 2460 - 24" chassis height, weight 40 tons, mining range 32" to 96". Model 2810 - 28" chassis height, weight 53 tons, mining range 45" to 120". Model 3612 - 36" chassis height, weight 60 tons, mining range 50" to 144".
Bore Miners	EIMCO Boring Machines are in use throughout the potash, salt and trona industry and are the only true continuous miners in the market place today. Model 780A - Weight 74 tons. Mining height & width 96" x 166". Model 1012 - Weight 235 tons. Mining height & width 144" x 240". Model 780AW4 - Weight 249 tons. Mining height & width 96" x 309".
Scoops/Shield Haulers	A complete line of permissible battery powered and diesel powered scoops and shield haulers are available. EIMCO battery scoops range from the Model 550 with a 25" frame height to the 585 with a frame height of 44". Diesel scoops range from a chassis height of 36" for the Model 935 to 58" for the 936 Shield Hauler.
Roof Bolters	Seven different models of roof bolters are offered in a variety of single boom and dual boom roof drills. Chassis heights vary from 24" for the Model 300 drill to 33" for the 3510 - 50 dual boom roof drill.
Rail Equipment	EIMCO Coal Machinery is the leader in rail equipment for the USA. A complete variety of personnel carriers and locomotives are offered in battery, trolley or diesel configurations. Sizes range from 4 1/2 tons to 15 ton locomotives.

ESCO Corporation
World Headquarters
2141 N.W. 25th Avenue
Portland, OR 97210

Telephone: (503) 228-2141
Telex: 360590
Fax: (503) 778-6360
Chief Executive Officer: Sean-Patrick M. Gilronan, Vice President--International
International Sales Manager: Steve Clark, General Manager
International Offices: MEXICO: Guadalajara; BRAZIL: Sao Paulo; FRANCE: Saint Priest; SINGAPORE

ESCO Corporation is a world leader in steel technology, providing innovative products and alloys for the coal mining industry. ESCO was founded in 1913 as Electric Steel Foundry Company in Portland, OR. ESCO continues to pioneer technology advances in metallurgy, design and manufacture. ESCO's innovative products and unique casting capabilities have earned a world-wide reputation for excellence. ESCO has manufacturing operations in the United States, Canada and Europe. A global marketing partnership called ESCONET has licensees throughout the world who are qualified manufacture's of ESCO alloys and products within their own markets.

Product/Service	Description
Mining Equipment	High-performance buckets, tooth systems and ground engaging tools resist impact and abrasion in general purpose as well as the most severe applications. Shovel Dippers and dragline buckets, plus rigging and accessories are available for all types and sizes of machines. ESCO also produces dozer- and scraper-mounted rippers, cutting edges and endbits, plus replaceable wearparts for crushers.

Goodman Equipment Corporation
4834 South Halsted Street
Chicago, IL 60609

goodman

GOODMAN EQUIPMENT CORPORATION

Telephone: (312) 927-7429
Telex: 6871228
Fax: (312) 927-5905
Chief Executive Officer: Calvin A. Campbell, Jr.
International Sales Manager: Silvio M. Martino
International Offices: CANADA: Goodman Mfg. Co. of Canada Ltd., P. O. Box 2157, Station A, Sudbury, Ontario P3A 4Si TEL. (705) 560-4300; ARGENTINA: Daniel G. Cormick SA, Casilla del Correo 5260, 1043 Buenos Aires TEL. 140-1508; BOLIVIA: Sociedad Commercial Mara Ltd, Casilla Correo 1718, La Paz TEL. 2-354506; BRAZIL: Nordberg Industrial Ltd, Jose Vieria de Mendonca, Distrito Industrial, 33200 Vespasiano MG TEL. 31-621-1200; CHILE: MSA de Chile Ltd, Casilla 16647 Correo 9, Santiago TEL. 225-5377; FRANCE: Auray Engineering, 69 Rue St.. Lazare, Paris 75009 TEL. 48740366; INDIA: General Mktg. & Manufacturing Co., Birla Bldg., 16th Fl., 9/1 R.N. Mukherjee Road, Calcutta 700001, West Bengal TEL. 0211-449170; ITALY: CO.AM.CO.SRL, Via S. Guiseppe 25, 20038, Seregno, Milan TEL. 968-1537; JAPAN: C. T. Takahaski & Co. Ltd., Totate No. 5 Yaesu Bldg., 40-14, Yaesu 1-Chrome, Chuo-Ku, Tokyo 103 TEL. 281-2831; KOREA: Woodward & Dickerson Far East Ltd., P.O. Box 1218, 14th Fl., Oriental Chemical Bldg., 50 Sogong-Dong, Seoul TEL. 777-9551; MEXICO: MSA de Mexico S.A. de C.V., Apartado 168, 53500 Naucalpan de Juarez TEL. 576-6444; PERU: MSA de Peru, S.A., Casilla 5809, Lima 100 TEL. 354065; PHILIPPINES: Marsman & Co., Inc., Airport Box 7081, Manila TEL. 889731; SOUTH AFRICA: (Tunneling) Robert Hudson South Africa Pty. Ltd., P.O. Box 299, Van Dyk Road, Benoni TEL. 915-2410/13; TURKEY: Polar Mining & Industrial Corp., Ataturk Bulvari 117/11, Ankara TEL. 41-176520; ENGLAND: Cariboo Plant Services, Ltd., Cariboo House, Llanbedr-Y-Cennin, Conwy. LL32 8UP TEL. 269-552; YUGOSLAVIA: Interkomerc Kontinental, Terazije 27, P.O. Box 15, 1100 Beograd TEL. 11-340301

A century ago, Herbert Goodman began manufacturing underground mining locomotives in Chicago's famed back of the yards neighborhood. Today, Goodman Equipment Corporation continues as one of the world's premier suppliers of mining locomotives and parts. Locomotives from 1.5 to 50 tons transport extracted materials, people and supplies. They are used in 22 different countries throughout the world in the production of platinum, gold, silver, copper, lead, zinc, tin, coal and uranium. There are Goodman locomotives hauling iron at smelters. They even carry tourists at Disneyland and at Chicago's famed Museum of Science and Industry Coal Mine Exhibit. Goodman serves the underground coal and metals mining industries from its Chicago facility and additional warehouses in Waynesburg, Pennsylvania and Sudbury, Ontario. Mining agents represent Goodman throughout the world.

Product/Service	Description
Transportation Equipment	Goodman manufactures a broad line of powered rail equipment for underground coal mines. Prime movers are either diesel or electric, battery or trolley or combination battery and trolley powered. Standard models, personnel carriers from 4 to 16 passengers, locomotives from 2 to 35 tons. Goodman also works closely with clients to develop customized specifications for this equipment.
Tunneling	Goodman manufactures a broad line of locomotives for the tunneling industry. Electric or diesel powered. The electric locomotives can be either trolley or battery or a combination trolley and battery powered. Product ranges from 2 tons through 35 tons. Goodman also manufacturers the Conway Mucking Machine for muck loading.

Harnischfeger Corporation
Mining Equipment Division
Box 310
Milwaukee, WI 53201

Telephone: (414) 671-4400
Telex: 026724
Fax: (414) 671-7604
Chief Executive Officer: C. P. Cousland, President
International Sales Manager: Eugene W. Erkelenz, Vice President
Domestic Offices: CASPER, WY: Les Mettille, 1935 North Loop Avenue, Casper, WY 82601, Mailing Address: P.O. Box 296, Casper, WY 82602 TEL. (307) 237-1574, FAX (307) 235-7907; HIBBING, MN: Tony Wilkoski, 3621 15th Avenue East, P.O. Box 158-A, Hibbing, MN 55746 TEL. (218) 262-3837, FAX (218) 262-6323; CLOSTER, NJ: Jim Mahoney, 32 Hickory Lane, Closter, NJ 07624 TEL. (201) 768-5356; OAKLAND, CA: John Flaherty, 303 Hegenberger Rd., #414, P.O. Box 2399, Oakland, CA 94621 TEL. (415) 635-4742, FAX (415) 635-4747; DENVER, CO: Tom Egan, 2801 Youngfield, #311, Golden, CO 80401 TEL. (303) 232-0338, FAX (303) 238-6107; LEXINGTON, KY: Dave Mallack, 2525 Harrodsburg Rd., #235, Lexington, KY 40504 TEL. (606) 223-4845, FAX (606) 223-2018; PHOENIX, AZ: Ed Sullivan/Tom Beyer, 112 W. Iron Ave., Mesa, AZ 85210, Mailing Address: P.O. Box 20865, Phoenix, AZ 85036 TEL. (602) 834-7656, FAX (602) 834-7807; PITTSBURGH, PA: Carl Magnusson/Henry Erkelenz, 100 Sainte Claire Plaza, 1121 Boyce Road, Pittsburgh, PA 15241 TEL. (412) 941-3200, FAX (412) 941-2340
International Offices: CANADA: Don Stack, Harnischfeger Corporation of Canada, 12391 No. 5 Road, Richmond, BC V7H 4E9 TEL. (604) 271-5115, FAX (604) 271-6242; AUSTRALIA: Ian Scrimshaw, Harnischfeger of Australia Pty. Ltd., 71 Lytton Road, P.O. Box 231, East Brisbane, Queensland 4169 TEL. (61-7) 240-4600, FAX (61-7) 391-5103; BRASIL: J. Ronco/H. Fartura, Harnischfeger do Brasil, Caixa Postal 30892, 01000 Sao Paulo, S.P. TEL. (55-11) 289-0855, FAX (55-11) 2881823; GERMANY: T. Sheehan, Harnischfeger GmbH, Lyoner Strasse 14, D-6000 Frankfurt 71 TEL. (49-69) 6668177, FAX (49-69) 6668116; JAPAN: R. Foss, Harnischfeger Corp. of Japan, Ltd., Continental Town House No. C, 23-15 Wakamatsu-cho, Shinjuku-ku, Tokyo 162 TEL. (81-3) 204-1998, FAX (81-3) 204-3593, TELEX 2222694 Harnj; PERU: Sales, Parts & Service, Harnischfeger International Corp., P.O. Box 4581, Lima 100 TEL. (51-14) 406541, FAX (51-14) 401196; ENGLAND: Ian Grant, Harnischfeger International Corp., Brook House, Market Square, Aylesbury, Buckinghamshire, HP20 1SN TEL. (44-296) 89911, FAX (44-296) 87123, TELEX 838811-Brooke; MEXICO: Mario del Rincon, Harnischfeger International Corp., Hamburgo 108, 5 Piso, Mexico 06600, D.F. TEL. (905) 525-6331; SINGAPORE: Parts Depot, Harnischfeger Far East Private Ltd., P.O. Box 20, Farrer Road P.O., 9128 TEL. (65) 861-2633, FAX (65) 861-5843; SOUTH AFRICA: Sales, Parts, Service, Harnischfeger South Africa (Pty.) Ltd., 7-9 Vereeniging Road, P.O. Box 4087, Alrode, Alberton 1451 TEL. 927-11) 865-4654, FAX (27-11) 864-4406, TELEX 4-21381 SA

Harnischfeger is the world's largest supplier of electric mining shovels to major open pit mining operations for copper, gold, iron, ore, coal, lead, zinc, bauxite and other materials. P&H electric shovels can be delivered from the Harnischfeger factory in Milwaukee, or from its licensee, Kobe Steel Limited in Japan. It also is a leading supplier of large walking draglines and crawler draglines; hydraulic mining shovels, and a broad line of heavy-duty DC electric motors and controls. Worldwide product support through approximately 20 parts and service depots in major mining centers.

Product/Service	Description
Electric Mining Shovels	In capacities from 7 to 70 yards (5.3 to 53.5 cubic meters). Used in open pit mines, quarries in the digging and loading of such minerals as coal, copper, gold, iron ore, zinc, uranium, asbestos, stone, and clay. Larger models feature P&H Electrotorque® control systems, planetary propel and swing, and P&H Mine Matched quick-filling dippers.
Hydraulic Mining Excavators	In capacities from 10 to 20 cubic yards (7.7 to 15.3 cubic meters) for mining gold, copper, phosphate, coal, stone, clay, bauxite and asbestos; and for construction projects involving large-scale excavation. Featuring P&H undercarriage similar to electric mining shovels and large walk-inside machinery house.
P&H Page Walking Draglines	From 8 to 80 cubic yards (6.1 to 61.2^3) -- with high strength booms up to 350 feet length (107m) and reliable Page walking shoe propel system. A complete line of P&H Page dragline buckets and accessory hardware is available for any digging application. Primarily used in coal, phosphate and bauxite mines.
Crawler-Mounted Draglines	Electric or diesel-electric -- in capacities from 11 to 20 cubic yards (8.4 to 15.3 cubic meters) primarily for surface mining of coal, but also for other mining or earth-moving applications. Available with booms up to 200 ft. (61m) length and P & H digging buckets.
P&H Heavy-Duty DC Motors	From 5 to 2000 hp -- built for electric excavator and steel mill service with special design features for dynamic speed changes and reversing capability. Complete line of control systems available to match industrial application requirements.

Harris Group Inc.
P.O. Box 3855
Seattle, WA 98124

Harris Group Inc

Telephone: (206) 382-7410
Telex: 15-2917
Fax: (206) 382-9645
Chief Executive Officer: Robert M. Harris, Chairman
International Sales Manager: John D. Logsdon
Domestic Offices: PORTLAND, OR: 1750 N.W. Front Avenue, Portland, OR 97209 TEL. (503) 228-7200; BELLINGHAM, WA: 1111 Cornwall Avenue, Bellingham, WA 98225 TEL. (206) 734-4944; APPLETON, WI: 4321 W. College Avenue, Appleton, WI 54914 TEL. (414) 749-4600
International Offices: CANADA: Fourth Floor, 233 West 1st Street, North Vancouver, B.C. V7M 1B3 TEL. (604) 985-6485

Backed by more than four decades of engineering experience, Harris Group Inc. has become widely regarded as a leader in engineering design for industrial situations. Our staff of approximately 500 includes professionals in all of the major engineering disciplines. Harris Group Inc. has the capability and capacity to handle both large and small projects from the very earliest stages through to the completion of construction. We routinely provide services for, but not limited to, the steam and metallurgical coal, cogeneration, and coal transshipment industries. Areas of expertise offered in coal handling are size reduction; screening and classification; blending and sampling; storage and reclamation; unit train and ship loading/unloading; conveying and transshipment.

Product/Service	Description
Specialized Coal Handling	Harris Group Inc. staff members have accumulated many years of experience in coal handling in the United States, Canada, and Europe. Services provided include project management, planning, engineering permitting, construction management, and startup and training assistance. Typical systems provided are: export terminals complete with dock facilities; automated stacking and reclaiming; shiploading and unloading with enclosed tubular conveyor galleries; overland conveyor systems; state-of-the art transshipment facilities with totally enclosed storage and conveying; general coal handling from mine mouth to preparation plant and beyond.

Interstate Equipment Corporation
300 Mt. Lebanon Blvd.
Pittsburgh, PA 15234

AERIAL INTERSTATE TRAMWAYS

Telephone: (412) 563-5556
Fax: (412) 563-6741
Chief Executive Officer: James F. Vogel
International Sales Manager: Leo J. Vogel, Jr.
International Offices: INDIA: B.R. Vaderaa, 9-D Sagar Apt., 6 Tilak Marg, New Delhi 11001 TEL. 386-489

Since 1903, Interstate Equipment Corporation has been engaged in the design, manufacture and installation of Aerial Tramway (Ropeway) Systems for the mining industry. The company has always had a strong marketing effort directed at the coal and thermal power industries. Primarily the Aerial Tramway Systems have served the coal industry in the transport of coal from the mine to the preparation plant and in many cases the transport of the preparation plant rejects to the refuse area.

Product/Service	Description
Coal Transport Facility Construction particularly Transportation Equipment Mining Equipment	The company offers complete turnkey services of all types of Aerial Tramway Systems, including units to convey coal and mine refuse. The range of service includes feasibility studies, design, manufacturing and installation on a worldwide basis. Aerial Tramways have proven themselves over the years a low cost form of transportation, in rough terrain.

Jeffrey Division-Dresser Industries Inc.
P. O. Box 1879
Columbus, OH 43216

Telephone: (614) 297-3123
Telex: 4334014
Fax: (614) 297-3035
Chief Executive Officer: D. R. Stout, President
International Sales Manager: R. E. Hess
Domestic Offices: WOODRUFF, SC: Jeffrey Division, Processing Equipment Operations, P.O. Box 387, Woodruff, SC 29388
International Offices: AUSTRALIA: Jeffrey Division, Dresser Australia Pty Ltd, P. O. Box 282, Toronto, N.S.W. 2283; ENGLAND: British Jeffrey Diamond Division, Dresser Europe S.A., Thornes Works, Wakefield WF2 8PT, West Yorkshire; SOUTH AFRICA: Dresser South Africa Pty. Ltd., P. O. Box 14043, Wadeville 1422, tvl

Jeffrey has been producing underground mining equipment since 1876 and has pioneered development of mine locomotives, ventilation fans, continuous miners, continuous haulage systems, rubber-tired haulage vehicles, crushers, feeders and coal washing jigs. Acquisition by Dresser Industries Inc. in 1974 has strengthened Jeffrey's ability to supply high-technology equipment for coal mining, including underground extraction, haulage and support equipment, as well as coal handling and processing equipment for surface operators.

Product/Service	Description
Continuous Miners	Models 102, 1026, 1028, 1036 and 1060 continuous miners represent state-of-the-art all-electric designs for high-production-rate coal extraction in seam thicknesses ranging from 0.7 m to 4.7 m.
Continuous Haulage Systems	Models 94/506 and 5010 continuous haulage systems maximize productivity of continuous miners in 0.6 m to 1.5 m seams.
Rubber-Tired Haulage Vehicle	Models 4110 and 4114 diesel-powered RAMCARS offer efficient cable-less transport of coal from continuous miners.
Ventilation Fans	Model 8HU fans provide primary ventilation of coal mines with output up to 650 cubic m/sec.
Locomotives	Trolley, diesel and battery powered units range from 5 to 45 mt mass for underground main-line transport of coal and supplies.
Crushers	Hammer-roll- and impact-type units have capacities up to 2000 mt/hr for coal sizing and processing.
Feeders	Electromagnetic and mechanical vibrating type units provide throughput up to 1800 mt/hr for coal loading and processing.
Washing Jigs	Baum-type jigs use Jeffrey-patented CONSEP 2 electronic control of coal/refuse separation.

Jervis B. Webb Company
Bulk Systems Division
Webb Drive
Farmington Hills, MI 48331

Jervis B. Webb Company
Bulk Systems Division

Telephone: (313) 553-1240
Telex: 211892 JWEBB UR
Fax: (313) 553-1253
Chief Executive Officer: Jervis C. Webb
Division Sales Manager: Richard Baer
International Tech. Director: Gerald Dijkers
Domestic Offices: MARIETTA, GA: Jervis B. Webb Co. of Georgia, 560 Webb Industrial Drive, NE, Marietta, GA 30062 TEL. (404) 426-3900; LOS ANGELES, CA: Jervis B. Webb Co. of California, 4550 Seville Avenue, Los Angeles, CA 90058 TEL. (213) 588-8271; CHICAGO, IL: 400 West Lake Street, Suite 310, Roselle, IL 60172 TEL. (312) 980-2600; DENVER, CO: 7500 West Mississippi, Suite 126, Lakewood, CO 80226 TEL. (303) 935-4100; PITTSBURGH, PA: 1910 Cochran Road, Suite 657, Manor Oak II, Pittsburgh, PA 15220 TEL. (412) 563-0800; SHREVEPORT, LA: 1409 E. 70th, Suite 111, Shreveport, LA 71005 TEL. (318) 797-4418
International Offices: CANADA: Jervis B. Webb Co. of Canada, Ltd., 1647 Burlington St. East, Hamilton, Ontario L8H 7M5 TEL. (416) 547-0411; 4999 St. Catherines St. West, Suite 308, Westmount, Quebec H3Z 1T3 TEL. (514) 481-8967; 2951 Highway #7 West, Concord, Ontario L4K 1W3 TEL. (416)736-1301; ENGLAND: Jervis B. Webb Company (U.K.) Ltd., Dawson Road, Mount Farm, Milton Keynes MKI IQY TEL. 270222

The Bulk Systems Division of the Jervis B. Webb Company is based in Farmington Hills, Michigan, with sales-engineering offices located in the principal industrial areas of the United States. Bulk systems regularly designs and installs large coal-handling systems in all parts of the North American continent. Through Webb's Continental and International subsidiaries, the Bulk Systems Division gains access to installation opportunities in virtually every corner of the globe. A network of licensees in 18 foreign countries further extends Webb's marketing reach. The Jervis B. Webb Company, parent company of the Bulk Systems Division, was founded in 1919 and is engaged in the design, manufacture and installation of custom-engineered material handling systems and equipment. Its products range from the well-known overhead, chain conveyors widely used in "continuous flow", production line manufacturing and assembly applications, to automatic warehousing, wire-guided, driverless vehicles as well as large bulk materials handling systems.

Product/Service	Description
Coal Handling Systems	The Jervis B. Webb Bulk Systems Division designs and constructs complete coal handling systems from concept through construction. Included are stacker/reclaimers, ship loaders, barge unloaders and overland conveyor systems.

John Fabick Tractor Company
1 Fabick Drive
Fenton, MO 63026

FABICK
YOUR SYMBOL OF SERVICE SINCE 1917

Telephone: (314) 343-5900
Telex: 044-7325
Fax: (314) 343-4910
Chief Executive Officer: Harry P. Fabick, President
International Sales Manager: Thomas E. Fichter, Vice President
Domestic Offices: MARION, IL: Fabick Machinery Company, Old Hwy. East, Marion, IL 62959 TEL. (618) 997-1881, FAX (618) 997-4854; SALEM, IL: Fabick Tractor Company, U.S. Hwy. 50 West, Salem, IL 62881 TEL. (618) 548-1400, FAX (618) 548-1484; SIKESTON, MO: Fabick Bros. Equipment Company, 912 S. Main Street, Sikeston, MO 63801 TEL. (314) 471-5941, FAX (314) 471-8900; JEFFERSON CITY, MO: Fabick and Company, 2009 Missouri Blvd., Jefferson City, MO 65101 TEL. 14-636-3184, FAX (314) 634-2883

Caterpillar Dealer in business since 1917, experienced in coal mine operation including facilities for large track-type tractor service, specialized coal mine support personnel. Fabick will customize a maintenance program to meet the needs of a coal mine. Also several complementary lines of equipment including Demag, Grove, CMI Load King and others. Marion, IL location equipped with D11 undercarriage track press, engine dynamometer, large parts inventory on hand for equipment common in coal mines. Company is experienced in economical shipment of heavy equipment and has worldwide network established for location of difficult to find pieces. Company operates under founder's philosophy: "to ever serve our customers better."

Product/Service	Designation	Description
Track-type tractors	D3-D11	Caterpillar Tractors, standard and custom built, variety of blades, rippers, winches, 65-770 FWHP.

(Continued on next page)

John Fabick Tractor Company (Continued)

Motor Graders	120-16G	Caterpillar machines with blades, scarifiers, 125-275 FWHP.
Hydraulic Excavators	204-245	Caterpillar and Demag machines in a variety of configurations and attachments. Demag machines in larger sizes than Cat (15,000 lbs to 144,000 lbs).
Scrapers	613-657	Caterpillar machines in elevating, push load, and push-pull arrangements, 11 to 44 cu.yd.
Off Highway Trucks	769-789 D25-D400	35 ton to 195 ton. Articulating dump trucks from 25 to 40 ton.
Other Equipment		Wheel loaders, backhoe-loaders, compaction equipment, diesel engines, electrical generators, pumps, cranes, trenchers, more.

Kennedy Van Saun Corporation
Subsidiary of McNally, Inc.
P.O. Box 500
350 Railroad Street
Danville, PA 17821

Telephone: (717) 275-3050
Telex: 442-3060
Fax: (717) 275-6789
Chief Executive Officer: Andrew Benko
International Sales Manager: Terry J. Wilkins
Domestic Offices: Please contact company headquarters for further information.
International Offices: Please contact company headquarters for further information.

Kennedy Van Saun Corporation (KVS) is a technology organization with extensive experience and integrated skills in engineering, testing, manufacturing and project management. KVS provides systems, equipment and turnkey plants for the processing and handling of materials such as coal, lime, limestone, mineral ores, coke, magnesite, alumina, phosphate and the thermal destruction of industrial, pathological, and hazardous wastes. KVS activities are supported by an array of well known and widely used proprietary products and systems designed to meet the demands of the industries it serves.

Product/Service	Description
Coal Mining	Coal breaking, crushing, and grinding equipment and systems; hydraulic and dense media coal washing equipment and systems; centrifugal dryers for coal; sieve screens and classification equipment and systems for coal.
Boiler Equipment	

Komatsu Dresser Co.
755 S. Milwaukee Ave.
Libertyville, IL 60048

Komatsu Dresser Company

Telephone: (312) 367-2000
Telex: 6714757
Fax: (312) 367-2877
Chief Executive Officer: W. Ytterberg
International Sales Manager: T. Hasuo, Senior Vice President Marketing, Komatsu
W. D. Lee, Vice President Marketing, Dresser
A. G. Tucker, President Dresser & Haulpak Division
Domestic Offices: NORCROSS, GA: Komatsu Marketing Division, 4275 Shackleford Road, Norcross, GA 30093-2979; LIBERTYVILLE, IL: Dresser Marketing Division, 755 S. Milwaukee Avenue, Libertyville, IL 60048; PEORIA, IL: Dresser Haulpak Division, 2300 N.E. Adams St., Peoria, IL 61639

Komatsu Dresser Company is solidly positioned as the No. 2 supplier of Construction and Mining Equipment in the western Hemisphere with sales over $1.5 billion. KDC employs over 5,000 people, has over 3.5 million square feet of manufacturing capacity and 1.5 million square feet of service parts capacity.

Product/Service	Description
Coal Mining Equipment	Komatsu Dresser Company manufactures and markets one of the world's broadest lines of Mining and Construction equipment including crawler tractors, crawler loaders, excavators, cranes, wheel loaders, off-highway trucks, scrapers, graders, compactors and cold milling equipment.

Marathon Letourneau Company
P.O. Box 2307
Longview, TX 75606

MARATHON LeTOURNEAU COMPANY

Telephone: (214) 753-4411, (214) 236-6500
Telex: 493-7115 MLADM
Fax: (214) 236-6585
Chief Executive Officer: J. Earl Beckman
International Sales Manager: Richard A. Hemmelgarn

Marathon LeTourneau Company is a leading manufacturer of specialized heavy-duty, off-road, electric drive equipment used in mining, forestry and materials handling. The company also produces and fabricates high quality alloy steel plate for the industrial market. Marathon LeTourneau Company was created in 1970 when R.G. LeTourneau, Inc. became a subsidiary of Marathon Manufacturing Co. of Houston, Texas. In 1979, Marathon became a wholly-owned subsidiary of The Penn Central Company. Today, Marathon LeTourneau Company operates as a part of the Penn Central Industries Group.

Product/Service	Designation	Description
Off-Road Hauler	T-2170, T-2190 T-2200, T-2240	The T-2000 series truck line ranges from 170 to 240 ton capacity. Diesel-electric drive & solid state controls.
Front-End Loader	L-800, L-1000 L-1100	Four wheel electric drive bucket sizes ranging from 15 to 22 cubic yards.
Log Stacker	4592/4, 5592/4 6592/4	Three sizes of stackers ranging in size from 45 to 65 ton capacity.
Jib-Crane	JC-40	Up to 150' boom, capable of stacking logs in a 360 degree area around the column.
Straddle Hoist	SST-100	Used for rail cars and piggy-back trailer handling. Diesel-electric drive.
Straddle Hoist	SSB-100	Used for rail cars and piggy-back trailer handling. Hasanti-sway bar for better operator control.
Side Porter	2682SS	Used for rail cars and piggy-back trailer handling. Highly maneuverable for selective lifting needs.

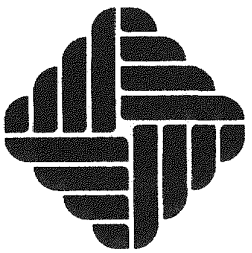
McNally Systems, Inc.
The Waterfront Building
200 First Avenue
Pittsburgh, PA 15222

Telephone: (412) 391-9980
Telex: 5106001996
Fax: (412) 765-1884
Chief Executive Officer: Shaun K. Donnellan
Domestic Offices: PITTSBURG, KS: Drawer D, Pittsburg, KS 66762 TEL. (316) 231-3000
International Offices: Please contact company headquarters for further information.

McNally has enjoyed 100 years of providing a variety of services and products to the coal industry. With extensive experience in bulk material handling and storage, McNally can design and supply a turnkey system tailored to the requirements of mining operations, electric power plants, or other transportation situations. A recognized leader in coal preparation, McNally can provide efficient and reliable coal cleaning facilities incorporating the latest in cleaning technology. In addition, McNally offers a wide range of coal sizing, cleaning and dewatering equipment that has been proven dependable in the coal industry.

Product/Service	Description
Coal Preparation Plants	McNally preparation plants are designed to recover the best possible product from a seam of coal utilizing water or dense media cleaning circuits. Our "Modular" plants offer a flexible as well as economical alternative to our conventional designs.
Coal Handling Systems	McNally provides efficient and practical handling systems to move coal effectively. Our belt conveyor systems provide the link between the mine mouth and the preparation plant or the railroad car and the barge.
Coal Storage Systems	McNally will design a system to satisfy any coal storage requirement. Our systems have included traveling trippers, radial stackers, stacking tubes and stacker/reclaimers. In cases where enclosed storage is required, McNally offers slip-formed concrete silos and covered slot storage.
Coal Processing Equipment	McNally features a wide variety of specialized processing equipment to size, clean, and dewater coal. Processing equipment available from McNally include roll crushers, rotary breakers, baum jigs, heavy medium vessels, water-only cyclones, automatic samplers, curved sieves, centrifugal dryers, and thermal dryers.

Mountain States Mineral Enterprises, Inc.
4370 South Fremont Avenue
Tucson, AZ 85714-1629



Telephone: (602) 792-2800
Telex: 510-600-7949
Fax: (602) 294-3841
Chief Executive Officer: Edward S. Frohling
International Sales Manager: Edward S. Frohling
Domestic Offices: ELKO, NV: 174 W. Idaho Street, Elko, NV 89801 TEL. (702) 753-8510, FAX (702) 753-8511

Mountain States Mineral Enterprises, Inc. (MSME) established headquarters in Tucson, AZ, USA, in 1969 to provide engineering services to the mining industry of the Southwest United States and Northern New Mexico. Today, MSME serves the entire mineral industry worldwide, specializing in the design and construction of process plants. MSME offers a complete range of services from sampling and analysis to process design, engineering, construction, start-up, and various proprietary technologies for minerals benefication. MSME staff members have extensive background in the design and operation of sophisticated systems and process plants for the recovery of a wide range of minerals.

Product/Service	Description
Engineering/Construction	MSME provides services that include mine planning, feasibility studies, flowsheet development, pilot plant testing, conceptual and detail engineering, procurement, construction, and start-up assistance. These services can be provided for mineral materials handling systems, plant retrofitting, revamping, and new plant design. MSME designs and manufactures heavy media systems, the moving belt separator, and an ultrasonic device for cleaning mineral surfaces, and for making and breaking of emulsions.

Peabody ABC Corporation
P.O. Box 77
Warsaw, IN 46580-0077



Telephone: (219) 267-5166
Telex: 215860 PEABCUR
Fax: (219) 267-2045
Chief Executive Officer: Stephen B. Rugenbarger, President
International Sales Manager: Robert Z. Smith
Domestic Offices: GRAND JUNCTION, CO: P.O. Box 2928, Grand Junction, CO 81501 TEL. (303) 242-3904, FAX (303) 245-6113; WALLACE, ID: Spunstrand Division, P.O. Box 1142, Wallace, ID 83873-1142 TEL. (208) 752-1157, FAX (208) 556-7621; WAYNESBURG, PA: P.O. Box 33, Waynesburg, PA 15370 TEL. (412) 627-8141, TELEX 846222 UD
International Offices: CANADA: ABC Manufacturers of Canada, Subsidiary, 2401 Thayer Avenue, Saskatoon, SK, S7L 5Y1 TEL. (306) 653-4303, FAX (306) 653-3890

Established in 1926, Peabody ABC Corp. is a leading manufacturer of mine ventilation products in the U.S. and Canada. Mining products include brattice cloth (fabricated into mine curtains), flexible blower tubing, wire-reinforced exhaust tubing, fiberglass mine ventilation tubing, and vaneaxial fans.

Product/Service	Description
Minevent®	Flexible blower tubing.
Mineduct®	Wire-reinforced exhaust tubing.
Rigiduct®	Filament-wound fiberglass ventilation tubing.
Ventatex®	Weft insertion knitted scrim between two sheets of vinyl film. Meets ASTM E-162.
Ventatex Ripstop®	Ventatex® is made with a patented, highly tear resistant weft insertion knitted scrim.
Flowline™ Fan	Vaneaxial fan for mine and tunnel ventilation.
Powder Bags	
Tank Covers	
Tubing Repair Kits	

REICHdrill
P.O. Box 361
Philipsburg, PA 16866



Telephone: (814) 342-5500
Telex: 857223
Fax: (814) 342-1135
International Sales Manager: Robert F. Valli, President
Thomas O'Byrne, Vice President of Sales & Marketing

REICHdrill, Inc. has over 40 years experience in sales, service and manufacturing of quality drilling equipment, serving the mining industry. The manufacturing, sales and administrative offices are headquartered in Philipsburg, Pennsylvania.

Product/Service	Description
Mining Equipment	REICHdrill manufactures truck and crawler mounted blasthole rigs with pulldown pressures ranging from 18,000 lbs. to 80,000 lbs. REICHdrill has developed the S.A.M. (Sliding Angle Mast) as an option on selected drill models for the specialized exploration drilling market. This unique feature positions the mast assembly at angles up to 45°, then slides the mast down to contact the ground for precise stabilization and control.

T.J. Gundlach Machine Company
#1 Freedom Drive
P.O. Box 385
Belleville, IL 62222

Telephone: (618) 233-7208
Telex: (910) 756-2081
Fax: (314) 436-5221
Chief Executive Officer: Ted Gundlach
International Sales Manager: Jim Fraser
Domestic Offices: SALT LAKE CITY, UT: 3760 Highland Office Plaza, Suite 500, Salt Lake City, UT 84016 TEL. (801) 273-3922, (801) 273-3951
International Offices: AUSTRALIA: ANI Ruwolt, Walloon Road, Karrabin/ P.O. Box 327, Ispwich, Queensland 4305 TEL. 61-7-280-7222, FAX 61-7-202-1928; INDIA: Larsen & Toubro Limited, 3B Shakespeare Sarani, Calcutta 700 071 TEL. 91-33-442301, FAX 91-33-434319; ENGLAND: Jenkins of Retford Limited, Thrumpton Lane, Retford, Nottinghamshire, DN22 7AN TEL. 44-777-706777, FAX 44-777-708141; SOUTH AFRICA: Nordberg Manufacturing Co., (SA) (PTY) Ltd., P.O. Box 2253, Johannesburg 2000 TEL. 27-11-642-7521, FAX 27-11-642-0120

Gundlach has been in business for over 65 years and manufactures crushing and mixing equipment for the mining, chemical, minerals benefication, and steel industries. Products include breakers, two roll single stage crushers, four roll two stage crushers, and mixers. Equipment is specifically designed to produce consistant product size containing minimum fines with better control of top size product. Gundlach can also build crushing equipment for special or unique applications such as high temperature requiring manufacture in stainless steel and other exotic material. Complete in-plant test crushing and screening facilities are available.

Product/Service	Description
Roll Crusher	Two roll single stage and four roll two stage crushers for primary and secondary reduction of material up to 24 inch feed size at rates in excess of 1500 tph depending on the desired product size. Roll configurations available for product sizes down to 1/4 inch and finer. Features include tramp metal relief, optional Nitroil(R) Adjustment/Relief System, which allows product adjustment while unit is operating, and centralized lubrication. Units offer heavy duty construction and features for ease of maintenance.
Sampler Crusher	Two roll single stage and four two stage crusher for preparation of samples on a continuous or batch basis to product sizes to 1/4 - 3/8 inch at rates of up to 10 tph.
Breaker/Crusher	Two roll single stage and four roll two stage breaker/crushers for primary reduction of material from ROM of over 5 feet lumps to product sizes down to 2 inches. Models available for crushing at over 4000 tph depending on desired product size. Features include those shown above for the roll crushers.
Cage-Paktor	In model sizes 30, 40, 50 and 75, this impact cage mill is used for fine grinding material at capacities up to 500 tph depending on product size desired. It features a "shaft within a shaft" design and a swing-away door which allows easy access to the internal replaceable wear items.

Terra Technology Corporation
3860 148th Avenue N.E.
Redmond, WA 98053

TERRA TECHNOLOGY CORP.
A SUBSIDIARY OF ROCHESTER INSTRUMENT SYSTEMS

Telephone: (206) 883-7300
Telex: 15-2070
Fax: (206) 882-1412
Chief Executive Officer: Paul Hess
International Sales Manager: Greg Hoyle
International Offices: Please contact company headquarters for regional offices.

Terra Technology Corp. is a wholly owned subsidiary of Rochester Instrument Systems, Inc. TTC and RIS are members of the well known U.S. owned Marmon Group of Companies. The Marmon holding company is in Chicago, IL. TTC designs, manufactures and markets digital instruments of superior reliability and accuracy for geotechnical, geophysical and industrial applications.

Product/Service	Description
Soils and Foundations Monitoring Devices	Piezometers (pneumatic and electric); total pressure cells (pneumatic and electric); settlement (pneumatic and electric); inclinometers (digital, portable, and automatic in-place); tiltmeters (digital, portable and automatic in-place).
Seismic and Strong Motion Instrumentation	Digital Strong Motion (portable event detection, control, recording, multi-station and telemetry instruments and systems); Micro Seismic (portable, gain-ranged, event detection, control, recording, multi-station and telemetry instruments and systems); Structural Response (balanced differential arrays for rotational motion recording, response spectrum analysis instruments and software); For Safety (seismic switches for alarm and control, sophisticated seismic shutdown systems).
Instrumentation Accelerometers	For high temperature, high shock, robotics, aerospace, industrial and vibration monitoring.

United Industries Corporation
12835 Bell-Red Road, #120
Bellevue, WA 98005-2635

Telephone: (206) 453-8995
Fax: (206) 462-4666
Chief Executive Officer: J. T. Lin
International Sales Manager: J. T. Lin

United Industries Corp. (UIC) is an engineering consulting firm specializing in energy and environment. UIC has developed a series of numerical models for calculating the three dimensional wind flow field over coal piles using wind breaks and wind turbines for reduction of fugitive coal dust emanating from the coal yard. UIC, serving as a consultant to Taiwan Power Co., is evaluating the feasibility of utilizing wind turbines combined with porous fences to reduce the emission of fugitive coal dust and meet the air quality standards.

Product/Service	Description
UIC 3D wind flow model	Calculate three-dimensional wind flow field in complex terrain.
UIC wind turbine array performance model	Calculate the production of wind turbine array in complex terrain.
UIC wind break model	Calculate the wind flow reduction due to wind breaks and wind turbines. It can be used to design windbreaks around a coalyard.

WEMCO
1796 Tribute Road
Sacramento, CA 95852

Telephone: (916) 929-9363
Telex: 377-423
Fax: (916) 929-5065
Chief Executive Officer: Lewis Ribich
International Sales Manager: Will Sullivan
Domestic Offices: WEMCO TUSCON, AZ: 7225 N. Oracle Ave., Suite 206B, Tuscon, AZ 85704 TEL. (602) 797-0850; WEMCO HOUSTON, TX: 17015 Aldine-Westfield Rd., Houston, TX, 77073 TEL. (713) 230-6454; WEMCO CHARLESTON, WV: 4200 First Ave., Nitro, WV TEL. (304) 755-8276
International Offices: AUSTRALIA; CANADA; CHILE; CHINA; FRANCE; ENGLAND; ITALY; MEXICO; SOUTH AFRICA; SPAIN

As a member of the Baker-Hughes group of companies, WEMCO established itself as a major supplier to the mining industry nearly 75 years ago. Today WEMCO continues to search for new and better ways to build superior quality products. With locations throughout the world, WEMCO has become internationally known for its quality products and superb engineering. WEMCO's commitment is simple: To design, manufacture and build products that perform better than anything else in their respective classes.

Product/Service	Designation	Description
Larcodems	L1-B1	A high capacity dense media separator that can handle coarse and fine coal in a single unit. Retrofits easily into existing plants as a replacement for Baum jigs and conventional dense media plants.
Leeds Column	F14-B1	Unique hydrodynamically designed rod barriers permit more effective beneficiation of coal over a wider range than conventional impeller flotation systems.
Centrifuges	D1-B13	Depending on application, a wide variety of WEMCO centrifuges are available to dewater coal refuse in sizes from 2" to-100 mesh. The horizontal design eliminates buildups as is the case with vertical machines.

Power Generation Systems:

Firms providing electrical generating systems for use in conventional steam plants, as well as gas turbine systems and combined cycle systems.

Aptech Engineering Services, Inc.
1257 Elko Drive
Sunnydale, CA 94089

APTECH®
ENGINEERING SERVICES, INC.

Telephone: (408) 745-7000
Telex: 33-4959
Fax: (408) 734-0445
Chief Executive Officer: G. R. Egan
International Sales Manager: S. A. Lefton
Domestic Offices: HOUSTON, TX; ALEXANDRIA, VA

Provides consulting engineering, design and operation services to the industrial and utility power industry. We specialize in the failure analysis, maintenance and determination of remaining useful service life of boiler components including heads and tubing, piping, turbines, fans, pumps, valves, air heaters, pulverizers and structural equipment. APTECH has a complete in-house metallurgical laboratory.

Product/Service	Description
Architecture/Engineering	Design of specialized power plant retrofits and upgrades to enhance their useful service life. Assessment and studies of reliability maintenance, capacity and efficiency. Design and assessment of piping systems and pressure vessels.
Boiler Equipment	Design of replacement tubing in superheaters, reheater, waterwall tubing and headers. Assessment of root cause of failure of boiler components, condition assessment, component life assessment and life assessment services.
Turbine Equipment	Assessment of the remaining useful life of turbine components including blades, disks, cases and rotors.

Braun Engineering Associates, P.C.
299 Edison Avenue
West Babylon, NY 11704

BEA BRAUN ENGINEERING ASSOCIATES

Telephone: (516) 694-6509
Fax: (516) 694-6509
Chief Executive Officer: Robert J. Braun, P.E.
International Sales Manager: Robert J. Braun, P.E.
Domestic Offices: OLD LYME, CT: 7 Stonewood Drive, Old Lyme, CT 06371 TEL. (203) 434-9124

Braun Engineering Associates is a fully integrated engineering firm providing mechanical and electrical power engineering services to utility and industrial clients. Project capabilities include engineering design and operations management of central heating plants, cogeneration installations, district heating and cooling systems. Our power system designs provide full spectrum services including in house pipe stress, thermal and fluid dynamic systems analysis with complete CAD capability. In addition to professional registration, BEA personnel hold several High Pressure Boiler Operating Engineers and Refrigeration Systems Operator Licenses and Unlimited Horsepower Diesel Licenses, and several national plant engineering operating and maintenance certificates.

Product/Service	Description
Architecture/Engineering	
Facility Construction	Steam plants, steam distribution systems, power generation, central chilled water and high temp. hot water plants, heat recovery, air pollution control, feasibility studies, electric utility interconnection, electric power cogeneration.
Facility Operation	Power plant operation, operations and maintenance management, facility planning, surveys, energy management.

Control Components Inc.
22591 Avenida Empresa
Rancho Santa Margarita, CA 92688

Control Components Inc.
An IMI company

Telephone: (714) 858-1877
Telex: 685500
Fax: (714) 858-1878
Chief Executive Officer: Stuart Carson
International Sales Manager: David Minoofar
Domestic Offices: HOUSTON, TX: Ronald Parker, CCI Houston, 1325 S. Creek Dr., Houston, TX 77084 TEL. (713) 492-6904, FAX (713) 492-6980, TELEX 79-2339
International Offices: ENGLAND: Colin Wright, CCI International Ltd., P.O. Box 216, Witton, Birmingham B6 7BA TEL. 44-21 356-4848, FAX 44-21 356-0251; SINGAPORE: S.K. Wong, Koson b.v. 7500A Beach Rd., #07-302, The Plaza, 0719 TEL. 65 296-2455, FAX 65-291-0763 Additional Offices and Representatives: Please contact company headquarters for further information.

Control Components Inc. was founded in 1961 to produce instrumentation valves for industry. CCI has long been recognized as a technological leader in the control valve segment of the valve industry for its development of the patented DRAG® velocity control valve for severe service applications in the power and process industries. In 1980, CCI also acquired the control valves of the renowned Bailey Controls Company. These valves are used primarily for boiler feedwater control, steam pressure reducing, heater level control, desuperheater water flow control and pump recirculation.

Product/Service	Designation	Description
Control Valves	CCI-DRAG® 100D Control Valve	For severe service applications - combats noise, erosion and cavitation by forcing process fluid to follow a tortuous path of right angle turns through trim, thus controlling damaging velocities.
	CCI-Bailey Utility Valves	D-10, B-33, E-40 and Al valves for low to moderate pressure drop liquid and steam application. The flow is controlled by the annular area of the trim or the port area of the cage.

Coppus Engineering Corporation
Box Number 15003
Worcester, MA 01615-003

Telephone: (508) 756-8391
Telex: 200046
Fax: (508) 799-9531
Chief Executive Officer: Donald E. Hare
International Sales Manager: Gordon T. Duncan, Jr.
International Offices: Please contact company headquarters for further information.

In 1909, Frans Coppus, a Dutch-born engineer, founded the company to manufacture a steam turbine-driven fan unit to facilitate the rapid start-up of steam locomotives in a round house. Today Coppus Engineering Corporation has over 500 employees and major facilities in three states. Presently the business, headquartered in Worcester, Massachusetts, is organized into four separate divisions, each with its own strong manufacturing management team and an equally strong marketing arm with a charter to focus their specialized business strategies on manufacturing and marketing a specific line of engineered products. These products are sold and serviced throughout the world, in many years with exports exceeding 30% of sales.

Product/Service	Designation	Description
Single State Steam Turbines	RLA/RLVA	Coppus RLA Horizontal Steam Turbines are available in ten ratings up to 4000 horsepower. They are rugged, reliable, cost-efficient and require little maintenance. The RLA turbines are ideally suited for mechanical and generator drive applications for both uninterrupted continuous and standby service. Emergency quick start capability is standard on all Coppus turbines. Coppus RLVA Vertical Steam Turbines are designed with NEMA mounting flanges for easy direct mounting on vertical drive equipment. Coppus RLVA turbines are available in the same frame sizes and horsepower ranges as the RLA horizontal turbines.
Multistage Steam Turbines	K, U, R	Coppus-Murray multistage turbines are manufactured in three models for applications up to 15,000 HP and for a wide range of operating steam conditions.

General Electric
Power Generation
1 River Road
Schenectady, NY 12345

Telephone: (518) 385-2320
Telex: 145 354
Fax: (518) 385-3850
Chief Executive Officer: D. L. Williamson, Vice President & General Manager
International Sales Manager: E. W. Zeltmann, Marketing Programs & Communication Manager

For the past 45 years GE's power generation business has been involved in feasibility and economic studies in addition to hardware development to develop coal technology as a leading power generation option offering environmental attractiveness in addition to economic advantages. The business has worked with major utilities around the world, including the recent successful demonstration of a 120 MW integrated coal gasification combined-cycle plant at Daggett, California. Participants include a consortium of Japanese companies, the Electric Power Research Institute, Texaco, and Southern California Edison. GE supplied the combined-cycle equipment for the plant.

Product/Service	Description
Equipment	Combined-Cycle Systems: GE blends the best of both gas and steam turbine technology in its STAG (TM), combined-cycle systems. Instead of wasting the heat exhaust from a gas turbine, it is collected in a heat recovery steam generator to allow additional power to be produced from a steam turbine from the same fuel. GE has more than 100 combined-cycle plants in the world, including the world's largest and most advanced combined-cycle plant (2000MW) in Japan which has been operating at an average of 48.5% fuel efficiency since startup in 1986. GE's new advanced gas turbines (the MS7001F - 150MW and the MS9001F - 212MW - for 60 and 50HZ markets) along with improved GE reheat steam turbines achieve record setting fuel efficiencies over 50% LHV. EPRI officials report that results of the Cool Water IGCC Demonstration plant at Daggett, California, show that a mature plant would be capable of producing power for less cost than conventional coal-fired plants equipped with flue desulfurization units.

(Continued on next page)

General Electric
Power Generation (Continued)

Programs	PROGEN (Progressive Generation) GE Power Generation works with power producers to develop a phased addition plan which also positions power generators for the future. The program involves the progressive steps of meeting today's needs through peaking gas turbines, then adding steam turbines and heat recovery steam generators for combined-cycle efficiencies -- thereby being positioned with the right technology to add gasifiers as they become economically attractive to provide users with multi-fuel capability. Advances in combined-cycle equipment technology have made the Progressive Generation concept a viable one for baseload requirements. Virginia Power (U.S.A.) will be the first to benefit from the MS7001F-based combined cycle technology. The plant will be in combined-cycle operation in 1990 positioning it for an ideal IGCC plant application. GE is also working with other power producers to use coal fuel through pressurized fluidized combustion. Longer range, the direct combustion of coal in a gas turbine is being studied. Current efforts at GE research and development centers are focused on coal water mixtures for direct burning.

Indeck Energy Services, Inc.
1111 South Willis Avenue
Wheeling, IL 60090

INDECK
a FORSYTHE COMPANY

Telephone: (312) 520-3212
Telex: 28-3544
Fax: (312) 520-9883
Chief Executive Officer: Michael P. Polsky
International Sales Manager: Lawrence J. Kostrzewa
International Offices: Please contact headquarters for further information.

Indeck is an experienced developer, owner, operator and maintainer of cogeneration and power generation plants using coal, natural gas, oil and waste fuels. Together with Indeck Power Equipment Company, North America's largest renter and leaser of emergency boilers, the company has been serving industrial and utility steam, power and water treatment needs since 1960. Indeck's broad range of experience includes over 750 MW of generating capacity either operating, under construction or under contract in the U.S. and Canada, with international expansions underway in the U.K. and elsewhere.

Product/Service	Description
Project Development	Indeck will perform all activities from project conception to construction, including cycle design and analysis, siting, engineering, permitting, power and steam sales contracting, fuel supply acquisition and debt and equity financing.
Project Operation	For projects owned in whole or in part by Indeck, Indeck will hire and train operating staff, prepare and follow operating and maintenance budgets, operate the project at optimum economic efficiency and schedule and carry out overhauls and repairs.

Quad Three Group, Inc.
37 North Washington Street
Wilkes-Barre, PA 18701

Q3G
Quad Three Group
Incorporated

Telephone: (717) 829-4200
Fax: (717) 829-0302
Chief Executive Officer: John L. Churnetski, P.E.

Quad Three Group, Inc., located in Northeastern Pennsylvania in the center of a major anthracite coal region, is a full service architectural/engineering firm consisting of 80 professionals and providing such services as land use planning, space utilization studies, building and building systems designs, utility systems engineering, bridge and roadway design, surveying and environmental assessment, management and remediation design.

Product/Service	Description
Architecture/Engineering	The company has substantial experience in the design of coal handling systems and coal combustion projects for steam generation and steam/electric power projects, serving district heat applications and cogeneration systems. The firm uses state-of-the-art CADD systems for all work and is a leader in the A/E industry in computer applications in design and drafting. All architectural and engineering disciplines necessary for the projects undertaken are represented on staff.

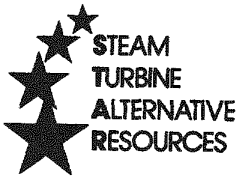
SSR Engineers, Inc.
2234 Lewis Avenue
P.O. Box 20876
Billings, MT 59104

Telephone: (406) 656-8100
Fax: (406) 652-2758
Chief Executive Officer: J. R. Rush, P.E.
International Sales Manager: W. F. (Bill) Hart

SSR Engineers, Inc. is a medium size consulting firm with 30 years of experience in power system design for substations, transmission, distribution, and utility system studies. In addition to planning and design, SSR Engineers offers a wide variety of testing and technical services. We provide a full range of power engineering services to over 50 utilities, many of which depend on SSR Engineers for all of their power engineering requirements.

Product/Service	Description
Electric Power System Design	Overhead/underground transmission and distribution planning and design; substation planning and design; construction management; co-generation; load management; combustion turbine/diesel generation systems; motor control centers; rate and short circuit studies.
Mechanical Design	Mechanical/electrical design for commercial and institutional buildings, high pressure steam boiler plants thermal storage, energy conservation audits, economic and feasibility studies.
Technical/Testing Services	System commissioning and equipment acceptance testing for relay and control systems, large power transformers, power factor, insulation, and high voltage cable.

Steam Turbine Alternative Resources
116 Latourette Street
Marion, OH 43302



Telephone: (614) 387-5535
Fax: (614) 383-2089
Chief Executive Officer: J. P. Flaherty
International Sales Manager: Jerry W. Johnson
Domestic Offices: Regional Offices in U.S.A. only.

The operating officers of the company are all ex-General Electric factory managers or Field Service Engineers. We manufacture turbine parts used during overhauls to increase efficiency and safety. The company is geared to quick turn around on the average of 3 weeks for all products. The quality and material will meet or exceed the OEM's. You will be pleasantly surprised with our prices. Customer references are available. Financial references are also available.

Product/Service	Description
Turbine Parts	Packing ring, gland rings, dummy rings, spill strips, spring back seal segments, springs, pins, plugs, screws, keys, rivets, studs, nuts, bolts, washers, valve stems, valve seats, valve disks, valve plugs, valve pins, valve bushings, by-pass valves.

Technical Publications: Firms providing equipment for underground and surface mining, as well as conveying, crushing, sizing, and beneficiation.

American Society for Testing and Materials
1916 Race Street
Philadelphia, PA 19103-1187

Telephone: (215) 299-5400
Telex: (710) 670-1037
Fax: (215) 977-9679
Chief Executive Officer: Joseph G. O'Grady
International Sales Manager: Philip L. Lively
Domestic Offices: WASHINGTON, DC: 300 Metropolitan Square, 655 Fifteenth Street, N.W., Washington, DC 20005 TEL. (202) 639-4025, FAX (202) 347-6109

Organized in 1898, ASTM has grown into one of the largest voluntary standards development systems in the world. ASTM has no technical research or testing facilities; such work is done voluntarily by 32,000 technically qualified ASTM members throughout the world. From the work of 134 technical committees, ASTM publishes standard test methods, specifications, practices, guides, classifications, and terminology for materials, products, systems, and services. More than 8,000 ASTM standards are published each year in the 67-volume *Annual Book of ASTM Standards.* These standards and related information are used throughout the world.

Product/Service	Designation	Description
Committee on Coal and Coke	D-5	More than 300 members meet twice a year to develop specifications for coal and coke produced from coal; to develop methods of sampling, analysis, and testing; to develop classifications of coals on the basis of chemical and physical characteristics; to standardize terminology, and to promote research and disseminate knowledge in these fields. All interested parties are welcome to participate in these activities.
Annual Book of Standards on Gaseous Fuels; BCoal and Coke	Vol. 05.05	This volume is divided into two parts. Under the heading Coal and Coke, 60 test methods and practices establish procedures for evaluating properties of coal and coke such as dustiness, moisture content, plastic properties, and sulfur content. Also included is the Standard Classification of Coals by Rank (D 388). List Price: $52.00; Member Price: $46.80.

Fieldston Company, Inc.
1920 N Street, NW
Suite 210
Washington, DC 20036

Telephone: (202) 775-0240
Fax: (202) 467-0768
Chief Executive Officer: James N. Heller

Fieldston Company, Inc. is a coal market and coal transportation consulting and publishing firm. The company publishes a bi-annual coal transportation reference guide, *The Fieldston Coal Transportation Manual*, as well as the semi-monthly newsletter, *Coal Transportation Report*. Fieldston's primary areas of consulting expertise involve analyzing coal markets, coal transportation rates and coal transportation logistics.

Product/Service	Description
The Coal Transportation Manual	The Manual is a reference volume dedicated exclusively to coal transportation from the mine mouth to the end user. The publication contains data and analysis on most modes of coal transportation including railroads, river barges and ocean vessels. The Manual contains extensive information on coal transportation facilities along the inland waterways, coal-hauling railroads, export rail and barge rates, ocean freight rates, Great Lakes coal terminals and ocean shipping ports. Additional information is provided for electric utility power plant coal handling and receiving capabilities.
The Coal Transportation Report	A semi-monthly newsletter addressing issues pertinent to the coal and coal transportation industries. Areas of coverage include transportation regulation, innovations in coal transportation technologies and general coal industry issues having an impact on the nation's coal transportation infrastructure.
Coal Transportation Rate Logistics Analysis	Fieldston provides analysis and development of coal transportation rates and logistics for coal shippers, producers and brokers. Transportation rate and logistical analyses can be conducted for coal movements by all modes. These analyses can be combined with plant or port siting studies, geographic coal market evaluations or detailed logistical studies to identify the most economic method to move coal from point to point.
Coal Market Analysis	Fieldston provides detailed analyses of specific coal markets, defined geographically or by end use. These analyses include compiling information on coal prices, quality and transportation.
Coal/Transportation Contract Analysis	Fieldston provides analyses to parties negotiating coal and transportation contracts. Specific areas that are studied include initial prices or rates, contract terms, including volume, quality of service, duration and contract escalation provisions.
Transportation Equipment Evaluations	Fieldston supplies analyses of the economics of investing in transportation equipment, using financial and economic models. Among the specific services that can be provided are evaluating the economics of purchasing aluminum or steel hopper cars, private car lease and railcar maintenance agreement

Transport Equipment: Firms providing equipment used in rail and shipboard transport of coal.



Black & Veatch, Engineers-Architects
1500 Meadow Lake Parkway
Kansas City, MO 64114

Telephone: (913) 339-2000
Telex: 42-6263
Fax: (913) 339-2934
Chief Executive Officer: John H. Robinson, Managing Partner
International Sales Manager: Gary F. Prendergast, International Partner
Stanley Krug, V.P. of Marketing
Domestic Offices: Over 25 offices located in the United States including those in Chicago, Los Angeles, Philadelphia, San Francisco, and Washington, DC.
International Offices: EGYPT: Cairo; SAUDI ARABIA: Dhahran; THAILAND: Bangkok; and COLUMBIA: Bogota

Black & Veatch, Engineers-Architects is today among the 10 largest engineering firms in the United States, and is one of the oldest and most experienced. The firm is a partnership with headquarters in Kansas City, Missouri, and offices in more than 25 other cities around the world. Black & Veatch is directed by a managing partner and six executive partners. The firm engages in engineering, design, procurement, and field management and does not engage in manufacturing or construction. All major engineering disciplines are represented. More than 50 percent of the 3,000 employees have college degrees. These include professional civil, electrical, mechanical, nuclear, chemical, sanitary, architectural, and structural engineers. Associated with them are architects, planners, economic and financial specialists, hydrologists, chemists, biologists, meteorologists, lawyers, physicists, skilled technicians, and administrative personnel.

Product/Service	Description
Engineering Services for Fossil Power Plants	The firm engages in engineering services for the generation, transmission, and distribution of electric power; collection, treatment, and disposal of wastewater.
Coal Handling Systems	Black & Veatch designs the bituminous, subbituminous and lignite terminating and handling facilities which are integral to coal fueled power plants. These facilities include systems for unloading (ocean-going ships, barges, railcars and on/off-highway trucks), storing, reclaiming, crushing, and weighing of coal to annual throughput capacities in excess of 9 million tons per year.
Coal Quality Analysis	The Utilization Cost Program (UCP) is a rapid evaluation tool developed by Black·& Veatch that takes you from coal quality data to total busbar costs on both new and existing units. It provides the capability to determine the impact of coal quality on unit design, unit performance, capital costs, and operating costs.
Port Facilities	The complete design of dock and cargo handling facilities has been accomplished by Black & Veatch in connection with a number of projects. These design engagements have included facilities for the unloading, storage, and loading of various fuels and general cargo as well as ancillary facilities including railroad sidings, warehousing, and bulk storage.

Goodman Equipment Corporation
4834 South Halsted Street
Chicago, IL 60609

goodman

GOODMAN EQUIPMENT CORPORATION

Telephone: (312) 927-7429
Telex: 6871228
Fax: (312) 927-5905
Chief Executive Officer: Calvin A. Campbell, Jr.
International Sales Manager: Silvio M. Martino
International Offices: CANADA: Goodman Mfg. Co. of Canada Ltd., P. O. Box 2157, Station A, Sudbury, Ontario P3A 4Si TEL. (705) 560-4300; ARGENTINA: Daniel G. Cormick SA, Casilla del Correo 5260, 1043 Buenos Aires TEL. 140-1508; BOLIVIA: Sociedad Comercial Mara Ltda, Casilla Correo 1718, La Paz TEL. 2-354506; BRAZIL: Nordberg Industrial Ltda, Jose Vieria de Mendonca, Distrito Industrial, 33200 Vespasiano MG TEL. 31-621-1200; CHILE: MSA de Chile LTda, Casilla 16647 Correo 9, Santiago TEL. 225-5377; FRANCE: Auray Engineering, 69 Rue St.. Lazare, Paris 75009 TEL. 48740366; INDIA: General Mktg. & Manufacturing Co., Birla Bldg., 16th Fl., 9/1 R.N. Mukherjee Road, Calcutta 700001, West Bengal TEL. 0211-449170; ITALY: CO.AM.CO.SRL, Via S. Guiseppe 25, 20038, Seregno, Milan TEL. 968-1537; JAPAN: C. T. Takahaski & Co. Ltd., Totate No. 5 Yaesu Bldg., 40-14, Yaesu 1-Chrome, Chuo-Ku, Tokyo 103 TEL. 281-2831; KOREA: Woodward & Dickerson Far East Ltd., P.O. Box 1218, 14th Fl., Oriental Chemical Bldg., 50 Sogong-Dong, Seoul TEL. 777-9551; MEXICO: MSA de Mexico S.A. de C.V., Apartado 168, 53500 Naucalpan de Juarez TEL. 576-6444; PERU: MSA de Peru, S.A., Casilla 5809, Lima 100 TEL. 354065; PHILIPPINES: Marsman & Co., Inc., Airport Box 7081, Manila TEL. 889731; SOUTH AFRICA: (Tunneling) Robert Hudson South Africa Pty. Ltd., P.O. Box 299, Van Dyk Road, Benoni TEL. 915-2410/13; TURKEY: Polar Mining & Industrial Corp., Ataturk Bulvari 117/11, Ankara TEL. 41-176520; ENGLAND: Cariboo Plant Services, Ltd., Cariboo House, Llanbedr-Y-Cennin, Conwy. LL32 8UP TEL. 269-552; YUGOSLAVIA: Interkomerc Kontinental, Terazije 27, P.O. Box 15, 1100 Beograd TEL. 11-340301

A century ago, Herbert Goodman began manufacturing underground mining locomotives in Chicago's famed back of the yards neighborhood. Today, Goodman Equipment Corporation continues as one of the world's premier suppliers of mining locomotives and parts. Locomotives from 1.5 to 50 tons transport extracted materials, people and supplies. They are used in 22 different countries throughout the world in the production of platinum, gold, silver, copper, lead, zinc, tin, coal and uranium. There are Goodman locomotives hauling iron at smelters. They even carry tourists at Disneyland and at Chicago's famed Museum of Science and Industry Coal Mine Exhibit. Goodman serves the underground coal and metals mining industries from its Chicago facility and additional warehouses in Waynesburg, Pennsylvania and Sudbury, Ontario. Mining agents represent Goodman throughout the world.

Product/Service	Description
Transportation Equipment	Goodman manufactures a broad line of powered rail equipment for underground coal mines. Prime movers are either diesel or electric, battery or trolley or combination battery and trolley powered. Standard models, personnel carriers from 4 to 16 passengers, locomotives from 2 to 35 tons. Goodman also works closely with clients to develop customized specifications for this equipment.
Tunneling	Goodman manufactures a broad line of locomotives for the tunneling industry. Electric or diesel powered. The electric locomotives can be either trolley or battery or a combination trolley and battery powered. Product ranges from 2 tons through 35 tons. Goodman also manufacturers the Conway Mucking Machine for muck loading.

Interstate Equipment Corporation
300 Mt. Lebanon Blvd.
Pittsburgh, PA 15234

Telephone: (412) 563-5556
Fax: (412) 563-6741
Chief Executive Officer: James F. Vogel
International Sales Manager: Leo J. Vogel, Jr.
International Offices: INDIA: B.R. Vaderaa, 9-D Sagar Apt., 6 Tilak Marg, New Delhi 11001 TEL. 386-489

Since 1903, Interstate Equipment Corporation has been engaged in the design, manufacture and installation of Aerial Tramway (Ropeway) Systems for the mining industry. The company has always had a strong marketing effort directed at the coal and thermal power industries. Primarily the Aerial Tramway Systems have served the coal industry in the transport of coal from the mine to the preparation plant and in many cases the transport of the preparation plant rejects to the refuse area.

Product/Service	Description
Coal Transport	The company offers complete turnkey services of all types of Aerial Tramway Systems, including units to convey coal and mine refuse. The range of service includes feasibility studies, design, manufacturing and installation on a worldwide basis. Aerial Tramways have proven themselves over the years a low cost form of transportation, particularly in rough terrain.
Facility Construction	
Transportation Equipment	
Mining Equipment	

Jervis B. Webb Company
Bulk Systems Division
Webb Drive
Farmington Hills, MI 48331

Telephone: (313) 553-1240
Telex: 211892 JWEBB UR
Fax: (313) 553-1253
Chief Executive Officer: Jervis C. Webb
Division Sales Manager: Richard Baer
International Tech. Director: Gerald Dijkers
Domestic Offices: MARIETTA, GA: Jervis B. Webb Co. of Georgia, 560 Webb Industrial Drive, NE, Marietta, GA 30062 TEL. (404) 426-3900; LOS ANGELES, CA: Jervis B. Webb Co. of California, 4550 Seville Avenue, Los Angeles, CA 90058 TEL. (213) 588-8271; CHICAGO, IL: 400 West Lake Street, Suite 310, Roselle, IL 60172 TEL. (312) 980-2600; DENVER, CO: 7500 West Mississippi, Suite 126, Lakewood, CO 80226 TEL. (303) 935-4100; PITTSBURGH, PA: 1910 Cochran Road, Suite 657, Manor Oak II, Pittsburgh, PA 15220 TEL. (412) 563-0800; SHREVEPORT, LA: 1409 E. 70th, Suite 111, Shreveport, LA 71005 TEL. (318) 797-4418
International Offices: CANADA: Jervis B. Webb Co. of Canada, Ltd., 1647 Burlington St. East, Hamilton, Ontario L8H 7M5 TEL. (416) 547-0411; 4999 St. Catherines St. West, Suite 308, Westmount, Quebec H3Z 1T3 TEL. (514) 481-8967; 2951 Highway #7 West, Concord, Ontario L4K 1W3 TEL. (416)736-1301; ENGLAND: Jervis B. Webb Company (U.K.) Ltd., Dawson Road, Mount Farm, Milton Keynes MKI IQY TEL. 270222

The Bulk Systems Division of the Jervis B. Webb Company is based in Farmington Hills, Michigan, with sales-engineering offices located in the principal industrial areas of the United States. Bulk systems regularly designs and installs large coal-handling systems in all parts of the North American continent. Through Webb's Continental and International subsidiaries, the Bulk Systems Division gains access to installation opportunities in virtually every corner of the globe. A network of licensees in 18 foreign countries further extends Webb's marketing reach. The Jervis B. Webb Company, parent company of the Bulk Systems Division, was founded in 1919 and is engaged in the design, manufacture and installation of custom-engineered material handling systems and equipment. Its products range from the well-known overhead, chain conveyors widely used in "continuous flow", production line manufacturing and assembly applications, to automatic warehousing, wire-guided, driverless vehicles as well as large bulk materials handling systems.

Product/Service	Description
Coal Handling Systems	The Jervis B. Webb Bulk Systems Division designs and constructs complete coal handling systems from concept through construction. Included are stacker/reclaimers, ship loaders, barge unloaders and overland conveyor systems.

Marathon Letourneau Company
P.O. Box 2307
Longview, TX 75606

MARATHON LeTOURNEAU COMPANY

Telephone: (214) 753-4411, (214) 236-6500
Telex: 493-7115 MLADM
Fax: (214) 236-6585
Chief Executive Officer: J. Earl Beckman
International Sales Manager: Richard A. Hemmelgarn

Marathon LeTourneau Company is a leading manufacturer of specialized heavy-duty, off-road, electric drive equipment used in mining, forestry and materials handling. The company also produces and fabricates high quality alloy steel plate for the industrial market. Marathon LeTourneau Company was created in 1970 when R.G. LeTourneau, Inc. became a subsidiary of Marathon Manufacturing Co. of Houston, Texas. In 1979, Marathon became a wholly-owned subsidiary of The Penn Central Company. Today, Marathon LeTourneau Company operates as a part of the Penn Central Industries Group.

Product/Service	Designation	Description
Off-Road Hauler	T-2170 T-2190 T-2200 T-2240	The T-2000 series truck line ranges from 170 to 240 ton capacity. Diesel-electric drive & solid state controls.
Front-End Loader	L-800 L-1000 L-1100	Four wheel electric drive bucket sizes ranging from 15 to 22 cubic yards.
Log Stacker	4592/4 5592/4 6592/4	Three sizes of stackers ranging in size from 45 to 65 ton capacity.
Jib-Crane	JC-40	Up to 150' boom, capable of stacking logs in a 360 degree area around the column.
Straddle Hoist	SST-100	Used for rail cars and piggy-back trailer handling. Diesel-electric drive.
Straddle Hoist	SSB-100	Used for rail cars and piggy-back trailer handling. Hasanti-sway bar for better operator control.
Side Porter	2682SS	Used for rail cars and piggy-back trailer handling. Highly maneuverable for selective lifting needs.

McNally Systems, Inc.
The Waterfront Building
200 First Avenue
Pittsburgh, PA 15222

Telephone: (412) 391-9980
Telex: 5106001996
Fax: (412) 765-1884
Chief Executive Officer: Shaun K. Donnellan
Domestic Offices: PITTSBURG, KS: Drawer D, Pittsburg, KS 66762 TEL. (316) 231-3000
International Offices: Please contact company headquarters for further information.

McNally has enjoyed 100 years of providing a variety of services and products to the coal industry. With extensive experience in bulk material handling and storage, McNally can design and supply a turnkey system tailored to the requirements of mining operations, electric power plants, or other transportation situations. A recognized leader in coal preparation, McNally can provide efficient and reliable coal cleaning facilities incorporating the latest in cleaning technology. In addition, McNally offers a wide range of coal sizing, cleaning and dewatering equipment that has been proven dependable in the coal industry.

Product/Service	Description
Coal Preparation Plants	McNally preparation plants are designed to recover the best possible product from a seam of coal utilizing water or dense media cleaning circuits. Our "Modular" plants offer a flexible as well as economical alternative to our conventional designs.
Coal Handling Systems	McNally provides efficient and practical handling systems to move coal effectively. Our belt conveyor systems provide the link between the mine mouth and the preparation plant or the railroad car and the barge.
Coal Storage Systems	McNally will design a system to satisfy any coal storage requirement. Our systems have included traveling trippers, radial stackers, stacking tubes and stacker/reclaimers. In cases where enclosed storage is required, McNally offers slip-formed concrete silos and covered slot storage.
Coal Processing Equipment	McNally features a wide variety of specialized processing equipment to size, clean, and dewater coal. Processing equipment available from McNally include roll crushers, rotary breakers, baum jigs, heavy medium vessels, water-only cyclones, automatic samplers, curved sieves, centrifugal dryers, and thermal dryers.

Polyken Technologies
690 Canton Street
Westwood, MA 02090-9167

POLYKEN TECHNOLOGIES
A DIVISION OF THE KENDALL COMPANY

Telephone: (617) 320-1000
Telex: 174370
Fax: (617) 320-1117
Chief Executive Officer: Frederick J. Zeitvogel
International Sales Manager: Samuel J. Thomas
Domestic Offices: HOUSTON, TX
International Offices: AUSTRIA; SINGAPORE; CANADA; SAUDI ARABIA. Call Primary Office for specific addresses.

Polyken Technologies is a manufacturer of pipeline coatings engineered for coal slurry pipelines, and other gas, oil, water pipeline coatings and adhesive tapes. Polyken's pipeline coatings have had 40 years of proved in-ground performance, all include coal slurry pipelines such as "Black Mesa" in the United States. Detailed information on request.

Product/Service	Description
Product 1200 (series)	For smaller diameter pipelines.
Product 1400 (series)	For general purposes, applications.
Product 1800 (series)	For enhanced protection in difficult terrain.
Product 2000 (series)	For high temperature performance.

Willbros USA, Inc.
Suite 700, 2431 East 61st Street
Tulsa, OK 74136

Telephone: (918) 748-7000
Telex: 79-6660
Fax: (918) 748-7087
Chief Executive Officer: L. J. Bump
G. L. Bracken, President
International Offices: REPUBLIC OF PANAMA: Edificio Torre Banco Germanico, 8th Floor, Panama 1 TEL. (507) 63-9282, TELEX 3380; NIGERIA: 256 Kofo Abayomi St., P.O. Box 1057, Victoria Island, Lagos, 614877 TELEX 21115; OMAN: P.O. Box 142, Muscat, Sultanate of Oman TEL. 590355, TELEX 5397; UNITED KINGDOM: Provincial House, 62-68 Eden Street, Kingston-upon-Thames, Surrey KT11EJ TEL. (01) 549-4471, TELEX 928172

Willbros USA, Inc. is a subsidiary of Willbros Group, Inc. which provides worldwide construction of pipelines and related facilities, onshore contract rotary drilling, maintenance of pipeline systems, dredging, transportation and pipe coating to the energy industry. Engineering and project management services are also provided to the energy industry, the U.S. Armed Forces and the telecommunications industry.

Product/Service	Description
Energy Transportation	Pipeline and facilities construction. Engineering and project management.

DO NOT MICROFILM
THIS PAGE

IV. SUPPORT SERVICES

Coal Transport: Firms providing transportation services between mine-mouth and ultimate consumer.

Bessemer & Lake Erie Railroad Co.
135 Jamison Lane
P.O. Box 68
Monroeville, PA 15146

Telephone: (412) 829-3430
Fax: (412) 829-6660
Chief Executive Officer: Donald H. Hoffman
International Sales Manager: Jack Lacey, Director of Marketing
Domestic Offices: CONNEAUT, OH: Pittsburgh & Conneaut Doc Co., Ford Avenue & Pearl St., P.O. Box 90, Conneaut, OH 44030
TEL. (216) 593-1102

Using the progressive Bessemer and its expanded coal storage and transfer facilities at the Port of Conneaut, producers are tapping the growing Canadian and American Great Lakes markets as well as the world export markets without seasonal interruptions. Route via the Bessemer and Lake Erie Railroad to Conneaut and let the Bessemer show you how to tap this growing market with the largest, most modern, and most efficient coal storage facility on the Great Lakes. Talk today with the people who know the Great Lakes export coal market at the Bessemer and Lake Erie Railroad Company.

Product/Service	Description
Coal Transport	Location: Conneaut, OH; owned and served by Bessemer and Lake Erie Railroad Company; operated by Pittsburgh & Conneaut Dock Company; length of pier: 1,200 ft.; coal handling system: both a track pit and a rotary dumper. Two 6,000 ton silos can be filled prior to boat arrival for faster loading; boat loading: shuttle loader capacity is 7,000 tons per hour and slewing loader capacity is 4,000 tons per hour. Total loading capacity of 11,000 tons per hour; boat clearance: dock accommodates lake vessels up to 1,000 feet in length with a 27-foot maximum draft; coal storage capacity: 55,100,000 tons.

The Bright Coal Group
300 Greenbrier Road
Summersville, WV 26651



Bright Coal Corporation

Telephone: (304) 872-3000
Telex: 467052 BRIGHTAM CI
Fax: (304) 872-3033
Chief Executive Officer: William T. Bright
International Sales Manager: Ronald R. Tanner

The Bright Coal Group is a growth oriented, independently owned and operated bituminous coal mining and marketing company located in Central West Virginia. All coal is produced by independent contract mining companies operating with non-union work forces on Bright properties with The Bright Coal Group retaining exclusive marketing rights thereof. From an initial sales volume of 29,000 tons in 1976, The Bright Coal Group has evolved into a significant business with sales in excess of 2,000,000 tons in 1988. Shipments from The Bright Coal Group that are destined for export markets can originate on the N&W Railroad for transloading at Newport News, the Conrail Railroad for transloading at Baltimore or Philadelphia, the CSXT (B&O) Railroad for transloading at Baltimore, and the Eastern Inland Waterway System for transloading at New Orleans.

Product/Service	Description
Bituminous Coal	Specification Ranges: Moisture: 4-8; Volatile Matter: 26-34%; Ash: 10-18; Fixed Carbon: 48-54; Sulfur: 0.70-1.5; Ash Fusion Temp: 2400°F - 2800°F; BTUs: 11500-13000; Size: Stoker or Crushed Run of Mine.

Burlington Northern Railroad
3700 Continental Plaza
777 Mail Street
Fort Worth, TX 76102



Telephone: (817) 878-2356
Telex: 62871208 (Easylink)
Fax: (817) 878-1596
Chief Executive Officer: Gerald Grinstein
International Sales Managers: Nicholas P. Moros, Michael H. Karl

Burlington Northern Railroad operates 23,476 miles of track encompassing 25 states and 2 Canadian provinces. Coal transportation represents approximately 48% of Burlington Northern Railroad's revenue ton miles.

Product/Service	Description
Coal Transport	Burlington Northern Railroad serves 36 coal mines, many among the largest producers in the world and, through interchange with other carriers, accesses additional mines for coal transportation. Burlington Northern Railroad directly serves port facilities in the Pacific Northwest and the Gulf Coast and in 1988, originated the first shipments of low sulfur Powder River Basin steam coal to the Pacific Rim. In 1988, Burlington Northern transported 140 million short tons of unit train coal for 45 utility customers at over 75 different destinations in 21 states. On a typical day, Burlington Northern operates over 600 locomotives transporting over 16,000 cars in coal service, with an average round trip mileage of 1,600 miles on our system.

Chicago and North Western Transportation Company
One North Western Center
Chicago, IL 60606

Telephone: (312) 559-7000
Fax: (312) 559-6495
Chief Executive Officer: Robert W. Schmiege, President and Chairman
International Sales Manager: David G. Weishaar, Vice President, Sales and Marketing--Energy

The Chicago and North Western is a leading railroad freight hauler in the central transcontinental corridor and a major originator of coal and grain. Chicago and North Western Transportation Company operates a 6,000-mile rail network in the central United States. CNW is a major transporter of coal, grain, automobiles and intermodal double-stack containers.

Product/Service	Description
Coal Transport	Western Railroad Properties, Incorporated (WRPI), CNW's coal-hauling unit, operates a 200-mile railroad in the southern Powder River Basin of Wyoming. WRPI is a leading originating carrier of low-sulfur coal from western mines to the Midwest and South.

Consolidation Coal Company
Consol Plaza
1800 Washington Road
Pittsburgh, PA 15241

Telephone: (412) 831-4382
Telex: 247-634
Fax: (412) 831-4571
Chief Executive Officer: B. R. Brown
International Sales Manager: Walter E. Schrage
Domestic Offices: NORFOLK, VA: 201 Granby Mall, Suite 216, Norfolk, VA 23510 TEL. (804) 627-6261, FAX (804) 625-5088, TELEX 240403 CONSOL NORF; BALTIMORE, MD: Consolidation Coal Sales Company Terminal, 3800 Newgate Avenue, Baltimore, MD 21224 TEL. (301) 631-7000, FAX (301) 631-7022
International Offices: BELGIUM: Godefroid Coal Trading and Shipping S.A., 37-41 Rue du Congress, Brussels 1000 TEL. 011-32-2-218-7220, FAX 32-2-218-6192, TELEX 846-21434

Consolidation Coal Company (Consol) operates 25 underground and surface mines in nine states and Alberta, Canada. The company is the second-largest coal producer in the United States and holds 6.1 billion tons in steam and metallurgical-grade coal reserves. More than 80 percent of Consol's annual production of more than 55 million tons steam coal for electricity generation. Nearly 11 million tons of high-grade metallurgical coal is produced annually. Consol mines are linked to major rail routes or the inland waterway for shipment to domestic customers and to exporting points on both coasts and the Gulf of Mexico.

Product/Service	Description
Steam Coal	Consol has exported steam coal since the early 1900s. Today consol exports steam coal to eight countries from mines in northern West Virginia, southwestern Pennsylvania and eastern Kentucky. Exporting points are Consolidation Coal Sales Company's (CCSC) terminal in the Port of Baltimore or terminals in Hampton Roads, Virginia and New Orleans, Louisiana.
Metallurgical Coal	Consol exports high-quality metallurgical coals from mines in southwestern Pennsylvania, West Virginia and Virginia. Low and mid-vol coals from southern Appalachian reserves are rail-shipped to Norfolk, Virginia for export, and mid- to high-vol coal through Newport News, Virginia. Pittsburgh Seam high-vol is shipped through CCSC's Baltimore terminal via New Orleans.
Coal Research	Consol maintains the U. S. coal industry's largest and most complete coal research organization and facilities. Located near Pittsburgh, Pennsylvania, Consol Research & Development works to improve coal mining, processing and combustion technologies. Consol R&D's 1.5 million BTU/hr. pilot combustor, the only one of its kind in the world, can simulate a wide range of boiler configurations to help customers make optimum fuel choices.
Transportation	Consol maintains a transportation and distribution group which coordinates coal shipments and quality control. Consol also provides complete terminaling services through CCSC's Baltimore terminal or through contractual arrangements with other exporting facilities. CCSC's terminal is serviced by two major U. S. rail carriers and has on-site ground storage of 12 million tons, which allows extensive coal blending capabilities and eliminates demurrage charges.

CSX Transportation, Inc.
100 North Charles Street
17th Floor
Baltimore, MD 21201



Telephone: (301) 237-4526
Fax: (301) 237-2465
Chief Executive Officer: John W. Snow
International Sales Managers: Mark D. Gibson, John R. Couch
Domestic Offices: RICHMOND, VA: Corporate Office, One James Center, Richmond, VA 23219; JACKSONVILLE, FL: Rail Transport, 500 Water Street, Jacksonville, FL 32202

CSX Transportation, the largest unit of CSX Corporation, has been transporting coal via rail for over a century and is the largest transporter of U.S. coal. CSX's rail system is comprised of 20,000 miles of rail, 55,000 coal hoppers and has 38,000 employees. All types and grades of coal are produced within CSXT's service area. Over ninety percent of the coal exported overseas via CSXT moves in unit trains to one of six terminals served by CSX at four ports. Each of these terminals offer ground storage providing flexibility in transportation scheduling as well as other benefits. CSXT has the experience and resources to meet all transportation requirements. Innovative management works closely with coal producers and consumers to ensure that the U. S. continues to maintain its position as a cost efficient and reliable supplier to world markets.

Product/Service	Description
Rail Transportation	From the coal fields east of the Mississippi river to the port of Baltimore, Maryland or Newport News, Virginia or Charleston, South Carolina or Mobile, Alabama.

Electric Fuels Corporation
235 Third Street South
P. O. Box 15208
St. Petersburg, FL 33733



Telephone: (813) 892-2700
Telex: 514168
Fax: (813) 892-2702
Chief Executive Officer: Richard D. Keller, President
International Sales Manager: Ernst A. Upmeyer III, Vice President, Albert W. Pitcher, Vice President

Electric Fuels Corporation (EFC) through its many subsidiaries is involved in coal mining, coal transportation, coal transfer facilities, fuel research in the coal area and the development of coal-based alternative fuels. Electric Fuels has developed a coal management system that has proved to be successful and highly competitive in supplying coal from mine site to the customer. This fully-integrated system is composed of five essential groups: coal, operations, marine and terminaling, alternative fuels and international marketing. The integration of these groups under Electric Fuels' management provides the necessary exposure to all phases of the coal industry.

Product/Service	Description
Advance Utilization	With access to experts in virtually every application of coal combustion, Electric Fuels can provide qualified technical know-how in the areas of ash utilization, mineral and metal recovery from ash and in ash disposal. From start to finish, Electric Fuels' customers are assured of experienced assistance with all their coal handling needs. EFC has developed services ranging from field and laboratory functions to advanced computer support.
Coal Derivatives	Electric Fuels' involvement in the development of alternative fuels is through COMCO, a leader in the manufacture of coal-oil mixture (COM), coal-water mixture (CWM) and petroleum coke-oil mixture (PETCOM). Coal-liquid mixtures are produced at COMCO's Port Sutton, Florida facility. REDICOAL, COMCO's new powdered coal product for industrial and utility use, has proved to be an economical replacement for fuel oil and natural gas.
Coal Mining	The coal group is responsible for the mining and preparation of coal from sites containing approximately 215 million tons of reserves located in the states of Virginia, West Virginia and Kentucky. Origin points have capability to load both trucks and unit trains.
Coal Transport	Marine Equipment Management Corporation, a wholly-owned subsidiary, handles coal from all inland river origins in either single barge or unit tow lots. Standby loading is available. Covered barges are available. MEMCO also offers switching and fleeting services at various Mississippi River ports. Dixie Fuels Limited offers handling, storing, terminaling and transporting bulk cargo by sea-going marine transportation equipment.

(Continued on next page)

Electric Fuels Corporation (Continued)

Facility Operations	International Marine Terminals is a bulk materials handling facility strategically located near the mouth of the Mississippi River. The recently expanded terminal consists of modern facilities, ground storage/blending and a coal testing laboratory operated by an independent agent. Hatfield Terminals operates transfer facilities in Cincinnati, Ohio, on the Ohio River and near Charleston, West Virginia, on the Kanawha River. Kentucky May Coal operates a coal transfer facility on the Big Sandy River.

Farrell-Cooper Mining Company

P.O. Box 1947
6001 South Zero
Fort Smith, AR 72902

FARRELL-COOPER MINING COMPANY
Mining Construction

Telephone: (501) 646-4366
Fax: (501) 646-3220
Chief Executive Officer: William J. Cooper
International Sales Manager: William J. Cooper
International Offices: Please contact company headquarters for further information.

Farrell-Cooper Mining Company is in the business of mining, transporting and exporting bituminous coal and cannel coal for industrial fuel and domestic home heating fuel. We operate coal loading facilities on the Arkansas River (1,500 ton barges), but mainly at the Port of Corpus Christi, Texas. At Corpus Christi, we handle product for export as well as product being imported.

Product/Service	Description
Coal Exporters	Export facility is located adjacent to Port of Corpus Christi. The port's depth is 45 feet and is the deepest port on the Gulf of Mexico.
Coal Mining	Operate two surface mines in the State of Oklahoma on Low Volatile and High Volatile Bituminous Coal. Operate two surface mines in the State of Texas on a High Volatile, Low Ash Cannel Coal under the name of Farco Mining of Texas, Inc. All coal mines are equipped with coal washing facilities.
Coal Transport	All of our mines are equipped with railroad tipples in addition to major highway access.

Goodman Equipment Corporation
4834 South Halsted Street
Chicago, IL 60609

GOODMAN EQUIPMENT CORPORATION

Telephone: (312) 927-7429
Telex: 6871228
Fax: (312) 927-5905
Chief Executive Officer: Calvin A. Campbell, Jr.
International Sales Manager: Silvio M. Martino
International Offices: CANADA: Goodman Mfg. Co. of Canada Ltd., P. O. Box 2157, Station A, Sudbury, Ontario P3A 4Si TEL. (705) 560-4300; ARGENTINA: Daniel G. Cormick SA, Casilla del Correo 5260, 1043 Buenos Aires TEL. 140-1508; BOLIVIA: Sociedad Comercial Mara Ltda, Casilla Correo 1718, La Paz TEL. 2-354506; BRAZIL: Nordberg Industrial Ltda, Jose Vieria de Mendonca, Distrito Industrial, 33200 Vespasiano MG TEL. 31-621-1200; CHILE: MSA de Chile LTda, Casilla 16647 Correo 9, Santiago TEL. 225-5377; FRANCE: Auray Engineering, 69 Rue St. Lazare, Paris 75009 TEL. 48740366; INDIA: General Mktg. & Manufacturing Co., Birla Bldg., 16th Fl., 9/1 R.N. Mukherjee Road, Calcutta 700001, West Bengal TEL. 0211-449170; ITALY: CO.AM.CO.SRL, Via S. Guiseppe 25, 20038, Seregno, Milan TEL. 968-1537; JAPAN: C. T. Takahaski & Co. Ltd., Totate No. 5 Yaesu Bldg., 40-14, Yaesu 1-Chrome, Chuo-Ku, Tokyo 103 TEL. 281-2831; KOREA: Woodward & Dickerson Far East Ltd., P.O. Box 1218, 14th Fl., Oriental Chemical Bldg., 50 Sogong-Dong, Seoul TEL. 777-9551; MEXICO: MSA de Mexico S.A. de C.V., Apartado 168, 53500 Naucalpan de Juarez TEL. 576-6444; PERU: MSA de Peru, S.A., Casilla 5809, Lima 100 TEL. 354065; PHILIPPINES: Marsman & Co., Inc., Airport Box 7081, Manila TEL. 889731; SOUTH AFRICA: (Tunneling) Robert Hudson South Africa Pty. Ltd., P.O. Box 299, Van Dyk Road, Benoni TEL. 915-2410/13; TURKEY: Polar Mining & Industrial Corp., Ataturk Bulvari 117/11, Ankara TEL. 41-176520; ENGLAND: Cariboo Plant Services, Ltd., Cariboo House, Llanbedr-Y-Cennin, Conwy. LL32 8UP TEL. 269-552; YUGOSLAVIA: Interkomerc Kontinental, Terazije 27, P.O. Box 15, 1100 Beograd TEL. 11-340301

A century ago, Herbert Goodman began manufacturing underground mining locomotives in Chicago's famed back of the yards neighborhood. Today, Goodman Equipment Corporation continues as one of the world's premier suppliers of mining locomotives and parts. Locomotives from 1.5 to 50 tons transport extracted materials, people and supplies. They are used in 22 different countries throughout the world in the production of platinum, gold, silver, copper, lead, zinc, tin, coal and uranium. There are Goodman locomotives hauling iron at smelters. They even carry tourists at Disneyland and at Chicago's famed Museum of Science and Industry Coal Mine Exhibit. Goodman serves the underground coal and metals mining industries from its Chicago facility and additional warehouses in Waynesburg, Pennsylvania and Sudbury, Ontario. Mining agents represent Goodman throughout the world.

Product/Service	Description
Transportation Equipment	Goodman manufactures a broad line of powered rail equipment for underground coal mines. Prime movers are either diesel or electric, battery or trolley or combination battery and trolley powered. Standard models, personnel carriers from 4 to 16 passengers, locomotives from 2 to 35 tons. Goodman also works closely with clients to develop customized specifications for this equipment.
Tunneling	Goodman manufactures a broad line of locomotives for the tunneling industry. Electric or diesel powered. The electric locomotives can be either trolley or battery or a combination trolley and battery powered. Product ranges from 2 tons through 35 tons. Goodman also manufacturers the Conway Mucking Machine for muck loading.

Imperial-Pacific Investments, Incorporated
405 Capitol Street, Suite 607
Charleston, WV 25301

IMPERIAL·PACIFIC INVESTMENTS INCORPORATED

Telephone: (304) 343-6550
Fax: (304) 343-9849
Chief Executive Officer: Robert C. Gibson
International Sales Manager: William F. Davison

Imperial-Pacific Investments, Inc. is a privately held company incorporated in the state of West Virginia. Wholly owned subsidiaries of IPI are Winchester Coals, Inc., Princess Susan Coal Co., and Hawks Nest Mining Co. IPI is a full service coal mining and shipping company delivering steam and metallurgical coal to domestic and international customers. IPI is able to originate shipments via rail or water.

Product/Service

Coal Exporters

Coal Mining

Coal Transport

Interstate Equipment Corporation
300 Mt. Lebanon Blvd.
Pittsburgh, PA 15234

Telephone: (412) 563-5556
Fax: (412) 563-6741
Chief Executive Officer: James F. Vogel
International Sales Manager: Leo J. Vogel, Jr.
International Offices: INDIA: B.R. Vaderaa, 9-D Sagar Apt., 6 Tilak Marg, New Delhi 11001 TEL. 386-489

Since 1903, Interstate Equipment Corporation has been engaged in the design, manufacture and installation of Aerial Tramway (Ropeway) Systems for the mining industry. The company has always had a strong marketing effort directed at the coal and thermal power industries. Primarily the Aerial Tramway Systems have served the coal industry in the transport of coal from the mine to the preparation plant and in many cases the transport of the preparation plant rejects to the refuse area.

Product/Service	Description
Coal Transport	The company offers complete turnkey services of all types of Aerial Tramway Systems, including units to convey coal and mine refuse. The range of service includes feasibility studies, design, manufacturing and installation on a worldwide basis. Aerial Tramways have proven themselves over the years a low cost form of transportation, particularly in rough terrain.
Facility Construction	
Transportation Equipment	
Mining Equipment	

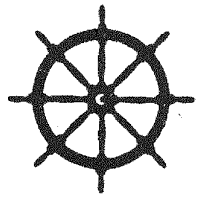
Island Creek Corporation
250 West Main Street
Lexington, KY 40575

Telephone: (606) 288-3000
Telex: 21 8414 ICCS LEX
Fax: (606) 288-3780
Chief Executive Officer: S. O. Ogden
International Sales Manager: P. H. Vining

Island Creek Corporation is a wholly owned subsidiary of Occidental Petroleum Corporation, which has operations in exploration of oil and natural gas, natural gas transmission, chemical, agribusiness and coal. Occidental, a Fortune 100 company, has revenues in excess of $19 billion annually. Island Creek is a producer of high quality metallurgical and steam coal for both the export and domestic market. Total sales and production during 1988 were 21.9 million tons while 1989 is expected to reach 23 million. This makes Island Creek among the 15 largest coal exporters. Island Creek has mining operations located in Kentucky, West Virginia and Virginia. Total recoverable reserves are approximately 2.8 billion tons of which 1.5 billion contain a sulfur content of one percent or less. In addition to coal production, Island Creek has interests in coal handling and transportation through subsidiaries: Kentucky Ohio Transportation Company and Curtis Bay Company.

Product/Service	Designation	Description
Metallurgical Coal	High Volatile	Ash 6.0%, Sulfur .85%, Volatile 34%
	Medium Volatile	Ash 4.5%, Sulfur .50%, Volatile 18.5%
	Low Volatile	Ash 5.5%, Sulfur .90%, Volatile 18.5%
Steam Coal	Compliance Sulfur	Moisture 6.5%, Ash 8-12%, Sulfur .75%, BTU/lb 12,500-13,000
	1% Sulfur	Moisture 6.5%, Ash 8-12%, Sulfur 1%, BTU/lb 12,500-13,000
	1.5% Sulfur	Moisture 7.0%, Ash 10-12%, Sulfur 1.5%, BTU/lb 12,800
	+2.5% Sulfur	Moisture 10%, Ash 7%, Sulfur 2.5%, BTU/lb 11,900
Terminal Services	Kentucky Ohio Transportation Co.	Transfer terminal from rail to barge located on the Ohio River in Wheelersbrug, OH, and South Shore, KY.
	Curtis Bay Company	Located in Baltimore, MD, this terminal transfers coal from rail to ground storage for loading to vessel or barge for domestic or export movement.

John S. Connor, Inc.
33 South Gay Street
P. O. Box 1717
Baltimore, MD 21203-1717



Telephone: (301) 332-4880
Telex: 170914 CONNOR UT
6849034 CONNOR UW
87565 CONNORBULK BAL
Fax: (301) 332-4925
Chief Executive Officer: Paul F. Connor
International Sales Manager: C. Richard Foster
Domestic Offices: NORFOLK, VA: 322 Monticello Arcade, P. O. Box 3910, Norfolk, VA 23514-3910 TEL. (804) 627-3910 TELEX 160106 JSCONNORNFK, FAX (804) 627-3538
International Offices: ENGLAND: Jonathon S. E. Turner, Heath Paddocks, Press Heath Whitchurch, Shropshire SY13 2AF TEL. 0948-3527, FAX 0948-5949, TELEX 35756 A/B TURNER G; GREECE: Captain Georgio A. Kondoulis, G. A. Kondoulis Shipping Co., Ltd., 150, Kolokotroni Street, 185 36 Piraeus TELEX 211258 ALGK GR; JAPAN: Yutaka Iono, Iono Marine Co., Ltd. 604 Catherine Yoyogi, 22-5, 2-Chome Yoyogi, Shibuya-ku, Tokyo 151 TEL. (03)378-3281, TELEX 232-5363 IONO J, FAX (03) 378-0866; ITALY: Angelo Noli, Paolo Scerni, S.P.A., 10 Piazza Portello, P. O. Box 1857, 16124 Genoa TEL. 3910 2692222 or 2267, FAX 39 102692237

Since 1917, John S. Connor, Inc. has been representing shippers and consignees of International Commerce. During this period, the company has grown to become one of the most versatile and innovative maritime agency businesses on the U. S. East Coast. As Shipper's Agent, the company handles the majority of export coal and bulk movements through Baltimore along with providing similar services at Hampton Roads. Connor's Agency Departments maintain full service marine operations in the general husbanding of vessels both as Owner's or Charterer's Agent at Baltimore and Hampton Roads. As with all Connor operations, our main objective is to protect the principal's interests at all times.

Product/Service	Description
Coal Transport	As Shippers Agent we provide attendant outbound documentation for export cargoes along with coordination of loading to fulfill Shipper's/Master's cargo requirements. John S. Connor provides fully staffed marine departments with extensive experience in the handling of the exacting needs of vessel activities and in-port requirements both as Owner's and Charter's Agent along with representation as Shipper's Agent.
Freight Forwarders	John S. Connor correlates with the Shipper for timely movement of coal cargo to quay in accord with arrival of vessel to Port, as well as providing full export documentation services and assistance in vessel loading operations.

Kaiser International Corporation
250 W. 5th St., Suite 125
San Pedro, CA 90731

KAISER INTERNATIONAL CORPORATION
PORT OF LOS ANGELES • SAN PEDRO, CALIFORNIA

Telephone: (213) 514-2880
Telex: 706746
Fax: (213) 514-3543
Chief Executive Officer: Richard E. Holdaway, President
International Sales Manager: James E. Holland, Marketing Manager

Kaiser International Corporation operates the Dry Bulk Facility in the Outer Harbor of the Port of Los Angeles at Berths 48-53. This facility was constructed in 1965 to handle the export of iron ore and coal to Japan. The facility has been used for extensive exports of coal, iron ore, copper concentrates, scrap steel, and petroleum coke as well as import cargoes. Kaiser International Corporation operates the facility providing diverse stevedoring services. Bulk materials are handled to or from ships, railcars, trucks or storage.

Product/Service	Description
Facility Operation	Coal is delivered to Kaiser International Corporation's facility in unit trains of up to one hundred cars which originate on the Denver Rio Grande and Western, Utah, Union Pacific, Santa Fe, and Southern Pacific Railroads from the states of Utah, Colorado, New Mexico, Arizona, and Wyoming. Import cargoes of coal have also been handled by Kaiser International Corporation.
Coal Transport	The coal loading Berths 49-50, operated by Kaiser International Corporation in the Outer Harbor of the Port of Los Angeles, have the deepest water of any coal loading berth in the United States. The facility berths have 51 Ft. (15.54M) of water depth available at Mean Lower Low Water (MLLW). Coal is unloaded from railcars by a rotary car dumper. Coal from the rotary car dumper is handled on a conveyor system that provides direct loading from railcar to ship, railcar to storage, and storage to ship. Fourteen acres of coal storage area provide 200,000 metric tons of live storage capacity. The facility has loaded and discharged coal cargoes of up to 125,000 metric tons. Coal is loaded to vessels by a conveyor feed shiploader traveling up to 680 feet along the dock and traversing in and out, allowing spout trimming of most cargoes. Machine trimming by bulldozer is available if required.

M.G. Maher & Company, Inc.
442 Canal Street
New Orleans, LA 70130

M.G. MAHER
& COMPANY, INC.

Telephone: (504) 581-3320
Telex: 584286
Fax: (504) 529-2611
Chief Executive Officer: Paula L. Maher, President
Domestic Offices: HOUSTON, TX: Ralph Benzaquin, 1121 Walker St., Houston, TX 77002 TEL. (713) 224-8101, FAX (713) 224-4101; MOBILE, AL: Lila Davis, One St. Louis Center, Mobile, AL 36602 TEL. (205) 433-8474, FAX (205) 438-3103; SHREVEPORT, LA: Donna Hopkins, 6209 Interstate Dr., Shreveport, LA 71109 TEL. (318) 631-3956, FAX (318) 631-4102; BRENTWOOD, TN: Bobby Thompson, 783 Old Hickory Blvd., Brentwood, TN 38131 TEL. (615) 371-8438, FAX (615) 377-9712; MEMPHIS, TN: Sandra Jennings, 3035 Distributors Row, Memphis, TN 38131 TEL. (901) 345-2878, FAX (901) 345-2980; JACKSON, MS: Keith West, Terminal Bldg., Jackson Int'l Airport, Jackson, MS 39208 TEL. (601) 932-7435, FAX (601) 932-7436

M.G. Maher is one of the largest, full-service international freight forwarders and customs brokers in this part of the world. We know every in-and-out of the technical details, laws, personalities, systems, routines, and quirks associated with shipping. We are fully computerized, which serves us well in what we regard as our most important function: looking out for our clients interests.

Product/Service	Description
Coal Transport	Tracing of inland movement to seaboard, booking of advance and timely cargo space, as well as preparing and executing documents and other paperwork.
Freight Forwarders	

Mobil Coal Producing Inc.
Box 17772
Denver, CO 80217



Telephone: (303) 298-2960
Telex: 910-9312633
Fax: (303) 298-2974
General Manager & VP: R. G. (George) McGinn
Vice President--Marketing: J. R. (Bob) Anderson
International Offices: INDONESIA: M. R. (Mike) Wolfhard, Mobil Oil Indonesia Inc., Post Bag 400, Jakarta 10002, Ratu Plaza 27th Floor TEL. 61-21-711211, TELEX 47431 MOI/JKT, FAX 61-21-7202068

Mobil Coal Producing Inc., an established coal producer and marketer, commenced production at its Caballo Rojo Mine in Wyoming's Powder River Basin in 1982. The Mine has a current capacity of over eight million tons per year with the potential to increase its permitted target of 20 million tpy. Coal from Caballo Rojo was successfully shipped to Taiwan Power Company in 1988 through the Roberts Bank terminal in British Columbia. Mobil Coal Producing Inc. is also developing a resource in Indonesia with Nissho Iwai as joint venture partner in its P. T. Berau project. Production is planned from the Berau Mine in early 1991 to supply both the Indonesian and Pacific Rim marketplaces.

Product/Service	Description
Coal Exporters	U. S. production from the Caballo Rojo Mine is low ash, low sulfur with a heating value of 8500 BTU/lb. Deliveries can be made on either the BN or the C&NW/UP railroads. Transshipment via the Roberts Bank Terminal is proven.
Coal Mining	Low ash, low sulfur, good quality coal from Kalimantan, Indonesia is planned for early 1991 shipment.
Coal Transport	Mobil can assist end users with their transportation requirements.
Technical Services	Mobil utilized state-of-the-art computer modeling and retains highly qualified combustion experts to provide domestic and international customers technical coal utilization assistance.

NERCO Coal Corporation
2043 Woodland Parkway
Suite 300
St. Louis, MO 63146



Telephone: (314) 872-2477
Telex: 403180, NERCO STL
Fax: (314) 993-8391
Chief Executive Officer: Charles C. Adams, President
International Sales Manager: Patrick J. Panzarino, Vice President (International Sales)

NERCO Coal Corp. is the coal mining and development subsidiary of NERCO, Inc., a New York Stock Exchange traded, Fortune 500 company. The company is one of the largest coal producers in the United States and has coal reserves and mining operations in both the western and eastern parts of the country. In 1988 NERCO Coal Corp. sold more than 31 million tons of coal, of which 24 million was from its own mines. The company is actively engaged in the export market.

Product/Service	Description
Coal Mining, Exporting, and Transportation	Powder River Basin, Midwestern, and Eastern United States coals for export.

Oglebay Norton Company
1100 Superior Ave.
Cleveland, OH 44114

Telephone: (216) 861-3300, (216) 861-8707
Telex: 62836077 ONCO-CLEVE
Fax: 216-861-2863
Chief Executive Officer: Renold D. Thompson
International Sales Manager: J. Douglas Loughead

Minerals, lake transportation and manufacturing are the major areas in which Oglebay Norton serves steelmakers, utilities, chemical and glass producers, manufacturers and other basic industries. Produces Ohio No. 8 Seam Coal (Steam) with daily production capabilities of 4000NT. Deep Mine located on NS Railroad at St. Clairesville, Ohio. Twelve thousand contiguous acres of coal reserves located in Boone County, WV. Five seams with average quality being 12,500 BTU's and 1% sulfur. Production is scheduled for fourth quarter 1989.

Product/Service	Designation	Description
Coal Mining	Ceredo Dock	Barge loading facility located near Huntington, WV on the Ohio River. Jointly served by CSX and NS railways (unit train capable) with annual capacity of 8,000,000 tons.
Coal Transport		
Facilities Construction	Licking River Terminal Co.	Barge loading facility located near Cincinnati, OH. Unit train capable and served by the CSX railway. Annual capacity of 8,000,000 tons.
Facilities Operation	Columbia Transportation Division	Offers a full range of 13 lake carriers to handle bulk materials on the Great Lakes.

Port of Long Beach
P.O. Box 570
Long Beach, CA 90801

Telephone: (213) 437-0041
Telex: 656452
Fax: (213) 437-3231
Chief Executive Officer: Paul Brown
International Sales Manager: Tom Underhill
Domestic Offices: LONG BEACH, CA: 925 Harbor Plaza, Long Beach, CA 90802
International Offices: Please contact domestic office for details.

The Port of Long Beach, established 1911, is a Department of the City functioning through a five-member Board of Harbor Commissioners. Currently comprising over 2,800 acres, the Port has expansion plans to add an additional 1,400 acres by the year 2020. Since over 50% of its tonnage volume is comprised of bulk cargo, the Port remains committed to handling cargos of all types. As the West Coast's largest Port in total tonnage, Long Beach offers facilities capable of handling current and future coal export volume.

Product/Service	Description
Special Coal System	Coal exports move through the Pier G facility operated by Metropolitan Stevedore Company. The Port's rail yard can hold up to two unit trains. With unloading capability of 30 cars/hr. throughput of four trains per day is achievable. The terminal operates two loaders with 3,000 mt/hr and 5,000 mt/hr capability. Two berths handle panamax and cape size vessels up to about 130,000 tons. Rail service into the Port is by Santa Fe, Southern Pacific and Union Pacific Railroads.

Southern Pacific Transportation Company
Coal and Minerals Group
One Park Central
1515 Arapahoe Street
Denver, CO 80202

Telephone: (303) 595-2311
Telex: 45634
Fax: (303) 595-2964
Chief Executive Officer: D. M. Mohan
International Sales Manager: T. D. Odwalt
Domestic Offices: SAN FRANCISCO, CA: One Market Plaza, San Francisco, CA 94105 TEL. (415) 541-1434
International Offices: JAPAN: 423 Hibiya Park, Building, 1-8-1 Yurakucho, Chiyoda KU, Tokyo, 100 TEL. 81-3-214-3177; MEXICO: Napoles 36-401, Col. Juarez D.F. 06600 TEL. (905) 208-9931, (905) 208-9966, (905) 514-6868, FAX (905) 511-9283

On October 15, 1988, the rail networks of the Southern Pacific Transportation Company (SP) and the Denver and Rio Grande Western Railroad (DRGW) were combined into one system. These two organizations will be operated as the Southern Pacific Lines which has single-line routes and unequaled networking opportunities in transportation. In addition, the Southern Pacific directly serves more west coast United States ports than any other rail carrier. The Southern Pacific's goal is to deliver a product consistent with our customer's individual coal specifications and volume requirements. Southern Pacific serves the major coal producing areas in both Colorado and Utah which are characterized by high B.T.U., low sulphur, low moisture bituminous coal. Metallurgical and steam coals are available in the Colorado and Utah market area.

Product/Service	Description
Trainload Coal Service	DRGW/SP provides operating flexibility and consistent performance in order to meet customer needs.
Unit Train Service	Short and long term systems designed around used requirements utilizing both carrier supplied and shipper supplied equipment.
Multi-Car Shipments	Offering tailor-made service to match the needs of lower volume coal consumers.
Single-Car Increments	Dependable service provided to small receivers.

Stinnes Coal Company, Inc.
750 Third Avenue
New York, NY 10017

Telephone: (212) 986-1515
Telex: 236767A STCC UR
Fax: (212) 949-7436
Chief Executive Officer: Michael T. Madden, President
George A. McClellan, Senior Vice President
Robert P. Yowell, Assistant Vice President
Domestic Offices: KY: Stinnes Coal Company, Inc., 131-27 U. S. Rt. 23, Catlettsburg, KY 41129 TEL. (606) 739-8441, FAX (606) 739-8443
International Offices: WEST GERMANY: Stinnes Intercoal GmbH, Humboldtring 15, Mulheim/Ruhr 12, 4330 TEL. 2087-4940, TELEX 856095 STC D, FAX 208-494-698; WEST GERMANY: HCM Intercoal GmbH, Humboldtring 15, Mulheim/Ruhr 12; WEST GERMANY: Stinnes Intercoal GmbH, Ballindamm 17, Hamburg 2000 TEL. 40-301-0030, TELEX 21-63-121 STI D, FAX 30-10-0340; ENGLAND: G. Harbottle & Co., Ltd., Block "A" Stottish Life House, Archbod Terrace, Newcastle upon Tyne NE21DA TEL. 91-281-7735, TELEX 53406 GEHAR, FAX 91-281-1884; NETHERLANDS: Stinnes Intercarbon B.V., Beurs Building, 7th Floor, Room no. 760-761, Beursplain 37, Rotterdam 3011 AA P.O. Box 30157, 3001-DD Rotterdam TEL. 10-405-3111, TELEX 25155 STI, FAX 10-405-5026; SPAIN: Intercarbon Espana, S. A., Alcala 93-4-a, Madrid 28009 TEL. 1-522-7069 TELEX, 22082 STINN, FAX 1-43-19780; ITALY: Agenzia Caarboni S.R.L., Corso Aurelio Saffi 15/3, Genova 16128, Casella postale 1425, 161121 Genova TEL. 10-566773, 10-55-91606, TELEX 271392 INTRA, FAX 10-53-2871; BRAZIL: Stinnes Intercarbon do Brazil, Avenida Rio Branco, 52, 15th Floor, CEP 20090, Rio de Janeiro TEL. 21-223-2118 TELEX, 21-253-4342, FAX 21-253-4679; SINGAPORE: Stinnes Intercoala Pte., Ltd. 18/06 Goldhill Plaza, 1130 TEL. 25-18755, TELEX 28921 STINCO, FAX 253-4030; AUSTRALIA: Stinnes Intercoal Australia, PTY, Ltd. 17 Black's Road, Arcadia, N. S. W. 2159 TEL. 2-653-1533, FAX 2-653-2159

(Continued on next page)

Stinnes Coal Company, Inc. (Continued)

Stinnes Coal Company is part of a complex network, namely Stinnes Intercarbon, AG, which is a subsidiary of VEBA, AG, a privately held, wholly owned German-based company which is one of the major independent coal traders in the markets of the world. Our coal trading activities are worldwide. We export coal from the Federal Republic of Germany, the German Democratic Republic, the USA, Canada, Columbia, Venezuela, South Africa, Australia, Poland, the CSSR, the USSR and the People's Republic of China. We import into the Federal Republic of Germany, other European countries, North Africa, Japan, South America, Canada, the Middle and Far East. We supply coal to power stations, steel mills, foundries and other major end users. We also furnish the industrial heating and the domestic fuel markets with whatever type of coal is required.

Product/Service	Designation	Description
Coal Exporters Coal Transport Financing Shipping		The product range we trade in includes the following categories: Steam coal, industrial coal, coking coal, anthracite, foundry coke, furnace coke, coke beans for ferro alloy producers, coke freeze, briquettes as well as household coal. Our long standing relations with our suppliers, our own trading companies at home and abroad and an efficient transportation system guarantees reliable and continuous supplies. We offer producers and suppliers a distribution network with representations in all of the world's major coal using regions. In conjunction with our affiliated companies, we can offer our own storage and transportation as well as screening and blending facilities.
	Curtis Bay Company	Located in Baltimore, MD, this terminal transfers coal from rail to ground storage for loading to vessel or barge for domestic or export movement.

Stone & Webster Engineering Corporation
245 Summer Street
Boston, MA 02210

Telephone: (617) 589-5111
Telex: W.U. 94-0001
Fax: (617) 589-2156, (617) 589-8071
Chief Executive Officer: Frank W. Ries, Chairman
International Sales Manager: Raymond F. Rugg, Director of Marketing
Domestic Offices: CHERRY HILL, NJ; CHICAGO, IL; DENVER, CO; FORT LAUDERDALE, FL; HOUSTON, TX; NEW YORK, NY; SAN FRANCISCO, CA
International Offices: ENGLAND: Milton Keynes; CANADA: Toronto; Stone & Webster also maintains offices in the following cities: Paris, Abu Dhabi, Dammam, Riyadh, Kuala Lumpur and Seoul. Please contact headquarters in Boston for further information.

Stone & Webster Engineering Corporation, which is celebrating its Centennial during 1989, is one of the world's largest engineering and construction firms. Since its founding, as a two-man consultancy in Boston, the firm has planned, engineered and provided construction and construction-management services for utilities and industrial power concerns worldwide. Have designed and/or built plants with a total capacity exceeding 50 million kilowatts, the company is considered one of the world's largest and most experienced engineer-constructors of coal power facilities. Over the years, Stone & Webster has helped many domestic and international clients develop technologies that can lead to cleaner and more efficient use of coal. For instance, in the United States the company has conceptually designed integrated gasification/combined-cycle systems for new generating stations and evaluated the use of coal liquids for existing oil-fired stations. Stone & Webster also worked on the first utility coal-gasification project in Brazil. Today, we continue to work with government agencies and private firms on new ways to clean and burn fossil fuels. Our development projects include a process that will convert a mixture of high-sulfur coal and residual crude oil into clean-burning fuel, as well as a retrofit combustor system that eliminates a variety of pollutants and a furnace injection system that removes sulfur dioxide. Listed below, are some of the areas in which Stone & Webster applies its consulting, engineering and construction expertise.

Product/Service	Description
Advanced Utilization	Coal processing systems; direct and indirect liquefaction; coal gasification combined cycle power systems; advanced power generation systems; pressurized fluidized bed technology; externally fired high temperature gas turbine combined cycle systems and direct fired dual working fluid power cycles.
Coal Industry	Coal drying technologies; surface and underground coal mining; coal handling; fuel analysis.
Coal Mining	Correlation and preliminary evaluation of data; mine planning and engineering design (surface and underground): pit planning and design; underground planning and design, production engineering, land reclamation. Drilling; blasting engineering and optimization; equipment selection and justification; budget review; reserve analysis; haulroad design; coal evacuation and loading design; auxiliary utility design: compressor systems, water piping systems; ventilation design; slop stability engineering; economic analysis; fatal flaw analysis; geological aspects: exploration methods and requirements, preliminary evaluations.
Coal Transport	Railroad construction, design and engineering; truck-shovel optimization; coal slurry technology.
Facility Construction	Silo design and engineering; conveyor systems; coal loadout facilities; crushing operations and design.

Total American Mining, Inc.
333 Clay Street, Suite 4800
Houston, TX 77002

Telephone: (713) 655-7900
Telex: 216195
Fax: (713) 650-8184
Chief Executive Officer: James J. Graham
International Sales Manager: Kenneth L. Brockway, Marketing Manager
Domestic Offices: GILLETTE, WY: P. O. Box 2737, Gillette, WY 82716 TEL. (307) 682-7999
International Offices: FRANCE: Francois Fiatte, Total Mines Nucleaire, Direction Charbon, Tour Mirabeau, 39-43 Quai Andre' Citroen, 75739; Paris, Cedex 15 TEL. 33-1-45-78-33-33, FAX 33-1-45-78-36-24; HONG KONG: Claude Bouilly, Total Energy Services (Hong Kong) Ltd., Room 2110, Hutchison House, 10 Harcourt Road TEL. 85-2-5-22019, FAX 85-2-5-8452093

Total American Mining, Inc. is a corporate affiliate of Total Compagnie Francaise Des Petroles, the major French energy group. Total's diversification into mining began in 1975 and now includes coal, uranium and precious metals activity worldwide. Coal is produced in Australia, South Africa and in the United States at Fort Union Coal Company. General Management of coal marketing, trading and shipping is provided by Total Mines Nucleaire. Total Energy Services (Hong Kong) Ltd. was established in 1986 to facilitate business development in the Far East. Total Group is the major shareholder and holds the chairmanship of the Cipha Terminal in Le Havre, France.

Product/Service	Description
Coal Exporters	Fort Union Coal Company is located in Campbell County near Gillette, Wyoming. The surface mine has a reserve base of 200 million Coal Mining tons and a permitted annual capacity of 8.2 million tons. Unit train rail service is provided by Burlington Northern (Union Junction). Typical As Received specifications: 8,200 BTU, 5% Ash, 31% Moisture, 0.4% Sulfur.
Coal Mining	
Coal Transport	

Union Pacific Railroad Company
1416 Dodge Street
Omaha, NE 68124

Telephone: (402) 271-4342
Telex: 44-7105
Fax: (402) 271-3378
Chief Executive Officer: Michael H. Walsh
Henry L. Arms, Asst. Vice President-Energy
International Sales Manager: William E. Nock, Market Manager-West
International Offices: JAPAN: C. (Curt) J. Hockaday, Sales Office, Sales Office, 4th Floor, Satoh Building, 1-19-4 Hamamatsu-cho, Minato-ku, Tokyo 105 TEL. 011-81-3-578-9401, FAX 011-81-3-213-9415; TAIWAN: Shin-1 Lin, Sales Office, 10-1, Lin Shen South Road, Taipei, Republic of China TEL. 011-886-2-393-8650

Union Pacific Railroad Company is one of the United State's largest and most modern transportation systems. Its vast rail network stretches across 20 states between the West Coast, the Gulf of Mexico and the Great Lakes. State-of-the-art facilities and capabilities, such as computer-monitored locomotives, a modern fleet of over 10,000 coal cars, a centralized coal train operation center and innovative pricing options provide customers first class service, rates and equipment.

Product/Service	Description
Port Availability	The UPRR directly serves three West Coast port facilities capable of loading ocean-going vessels. Los Angeles and Long Beach, CA can load from railcar to "cape size" vessels (140,000 tons), "panamax" size (60,000 tons) or "handy" size (25,000 tons). Existing export coal is only consuming about 50% of available capacity. The third port served by UPRR is Stockton, CA, which loads smaller vessels.
Coal Originations	The UPRR has access to all of the major coal sources in Utah and Colorado currently selling to the export market through either direct access or through connecting lines. This permits the UPRR to serve the western coal fields presently supplying coal to primarily the Pacific Rim countries through the West Coast ports.
Unit Train Service	The UPRR provides unit train service from the mines to the ports of Los Angeles and Long Beach, CA, maximizing efficiency in equipment utilization, as well as ensuring customer's ability to maintain effective controls on stockpiling and also direct loading to the ship. These benefits optimize efficiency throughout the "coal chain" which is shared by the port operators, coal producers and the carriers.

(Continued on next page)

Union Pacific Railroad Company (Continued)

Equipment	UPRR's solid fleet of railcars includes 10,000 four-bay, 100-ton open hopper cars from which to draw in serving the export market. Additionally, UPRR has leasing options to protect short-term requirements, if necessary, as well as agreement with connecting carriers to further enhance our capabilities in this market.

Utah Railway Company
970 University Club Building
136 E. South Temple
Salt Lake City, UT 84111

Telephone: (801) 521-3447
Fax: (801) 521-3483
Chief Executive Officer: D. Gilson, President
International Sales Manager: John E. West, III

Utah Railway Company has been in business since 1912. It transports coal in unit-trains (80-84 cars) from producers in Utah nearly 100 miles to a connection with Union Pacific Railroad at Provo, Utah. From Provo the trainload shipments are moved to port facilities at Los Angeles and/or Long Beach, California for transloading to vessels destined Pacific Rim countries. The coal originating on Utah Railway is high BTU, low sulphur steam coal.

Product/Service	Description
Coal Transport by Rail	Serving the following coal producers: Andalex Resources, Inc., Cyprus Plateau Mining Company, Genwal Mining Company, U. S. Fuel Company/USSRAM Exploration.

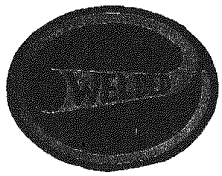
Utility Fuels, Inc.
P.O. Box 539
Houston, TX 77001

Telephone: (713) 888-4500
Telex: 763867
Fax: (713) 888-4539
Chief Executive Officer: F. K. Smith
International Sales Manager: Lawrence J. Rogers
Domestic Offices: HOUSTON, TX: 11 Greenway Plaza, Suite 800, Houston, TX 77046 TEL. (713) 888-4500
International Offices: Please contact Houston headquarters for further information.

Utility Fuels, Inc. is one of the leading coal providers in the United States, delivering over 17 million tons per year to six electric generating units. The company owns lignite reserves and mining equipment and manages the mining and procurement of coal and other minerals. The company also owns approximately 2,400 coal-carrying railcars and manages one of America's largest railroad freight agreements. UFI owns and operates materials handling systems and provides training and technical services for operators of mining, materials handling and electric generating facilities. Organized in 1973, Utility Fuels is a subsidiary of Houston Industries, an NYSE holding company with over $10 billion in assets.

Product/Service	Description
Coal & Minerals Supply	Utility Fuels is responsible for overseeing the mining of lignite reserves and manages contracts for the procurement of coal and minerals.
Transportation & Equipment	The company owns and maintains railcars and manages freight agreements for the delivery of coal and minerals.
Materials Handling	UFI owns, operates and maintains systems for unloading, storing, blending, crushing and conveying coal and lignite.
Operations Services	The company provides training project management and engineering services (including planning, scheduling and documentation) for operators of mining, materials handling and electric generating facilities.

Welded Construction Company
26933 Eckel Rd.
P.O. Box 32
Perrysburg, OH 43551



Telephone: (419) 874-3548
Fax: (419) 874-4883
Chief Executive Officer: R. H. Mogg
International Sales Manager: D. W. Thorn

Welded Construction Company has been in the pipeline construction business since 1966, building oil, natural gas and other cross-country pipelines for major transmission companies. We have qualified personnel, equipment, insurance and bonding available for large construction projects.

Product/Service	Description
Facility Construction	Coal Slurry Pipeline Construction

Williams Technologies, Inc.
320 South Boston, Suite 831
Tulsa, OK 74103

Telephone: (918) 582-5811
Fax: (918) 584-0474
Chief Executive Officer: David R. Williams, Jr.
International Sales Manager: H. J. Brolick
International Offices: Please contact the company headquarters for further information.

Principal business is project assessment, development and management from initiation of concept through commercial implementation, including financial sourcing. Manages R&D partnership for oil and mineral technologies, R&D program for coal liquefaction technology and operation of Black Mesa coal slurry pipeline. Provides consulting with regard to economic feasibility or technical evaluation of energy or resource projects. Manages operating facilities and technology development for others. Special expertise in development of coal slurry pipeline projects through past worldwide experience and ongoing operations management of Black Mesa pipeline.

Product/Service	Description
Coal Transport	Provides development, management, financial packaging and operation management of coal slurry pipeline systems.
Architecture/Engineering	Provides consulting services in planning and feasibility study, as well as management of design, construction and operations for coal slurry pipeline and oil and gas pipeline systems. Provide similar services for cogeneration plants and alternative energy projects.
Coal Derivatives	Management services for coal liquefication and deep cleaning R&D.

Facilities Operations: Firms providing plant operation and management (O&M) services on a contract basis.

Acurex Corporation
Environmental Systems Division
485 Clyde Avenue
P.O. Box 7044
Mountain View, CA 94039

ACUREX Corporation
Environmental Systems Division

Telephone: (415) 961-5700
Telex: 325961
Fax: (415) 964-5145
Chief Operating Officer: William Dean, President
Division General Manager: William Byars, Vice President
International Sales Manager: David Delasanta
Domestic Offices: TRIANGLE PARK, NC: P.O. Box 13109, Research Triangle Park, NC 27709
International Offices: Please contact headquarters for information.

The Environmental Systems Division of Acurex Corporation provides a full range of fuel services to government and industry. These include combustion facility design, operation and maintenance; environmental engineering and pollution control; and emissions sampling and analysis. Through its research for federal and state agencies such as the Environmental Protection Agency, the Gas Research Institute, the Department of Energy, and the California Energy Commission, the division develops technologies for commercial application and is able to provide industry with turnkey, state-of-the-art solutions for all combustion-related environmental engineering needs.

Product/Service	Description
Advanced Utilization	Testing of solvent-refined coal; assessment of clean coal use in stationary and mobile engines; testing of coal-oil mixtures in boilers; fuel staging research; assessment of coal-oil mixtures as light-off fuel; hot gas cleaning technology for coal-fired, pressurized, fluidized bed combustors.
Architecture/Engineering	Prototype design, fabricate and install coal combustion research furnaces. Design, fabricate and install pilot coal gasifiers, and fluidized bed combustors.
Boiler Equipment	Low SO_2 and low NO_x combustion control technology; boiler modification/engineering; test coal additives to alter flash characteristics; co-firing of hazardous waste in boilers; perform risk assessment of controlling NO_x emission from coal utility boilers.
Coal Derivatives	Clean coal use in stationary and mobile engines; demonstrate coal-oil mixture prep plant.
Facility Construction	Construction management; install coal combustion furnace; install pilot coal gasifier; supply anthracite gasifier.
Facility Operation	Operation of coal burning plants/equipment; O&M of fluidized bed combustor.

Braun Engineering Associates, P.C.
299 Edison Avenue
West Babylon, NY 11704

BEA BRAUN ENGINEERING ASSOCIATES

Telephone: (516) 694-6509
Fax: (516) 694-6509
Chief Executive Officer: Robert J. Braun, P.E.
International Sales Manager: Robert J. Braun, P.E.
Domestic Offices: OLD LYME, CT: 7 Stonewood Drive, Old Lyme, CT 06371 TEL. (203) 434-9124

Braun Engineering Associates is a fully integrated engineering firm providing mechanical and electrical power engineering services to utility and industrial clients. Project capabilities include engineering design and operations management of central heating plants, cogeneration installations, district heating and cooling systems. Our power system designs provide full spectrum services including in house pipe stress, thermal and fluid dynamic systems analysis with complete CAD capability. In addition to professional registration, BEA personnel hold several High Pressure Boiler Operating Engineers and Refrigeration Systems Operator Licenses and Unlimited Horsepower Diesel Licenses, and several national plant engineering operating and maintenance certificates.

Product/Service	Description
Architecture/Engineering	
Facility Construction	Steam plants, steam distribution systems, power generation, central chilled water and high temp. hot water plants, heat recovery, air pollution control, feasibility studies, electric utility interconnection, electric power cogeneration.
Facility Operation	Power plant operation, operations and maintenance management, facility planning, surveys, energy management.

Conco Systems, Inc.
135 Sylvan Street
Verona, PA 15147

CONCO
ESTABLISHED 1923

Telephone: (800) 345-3476
Telex: 866255
Fax: (412) 826-8255
Chief Executive Officer: George E. Saxon, Sr.
International Sales Manager: George Saxon, Jr.
Domestic Offices: KANSAS CITY, KS; WESTLAKE VILLAGE, CA; FORT LAUDERDALE, FL

Fully integrated firm providing absolutely the best services for proper maintenance and operation of condensers, heat exchangers, and service water systems.

Product/Service	Description
Tube Cleaning Equipment	Exclusive manufacturer of water powered tube cleaning tools for condensers and heat exchangers.
Tube Cleaning Services	Services utilizing exclusive tools.
NDT-Eddy Current Testing	Condition assessment of major cooling components.
Consulting	Preliminary opinion, root cause analysis, water treatment audits.
Failure Analysis	By nuevo laboratory techniques.
Process Modeling	Model cooling systems.

Consolidation Coal Company
Consol Plaza
1800 Washington Road
Pittsburgh, PA 15241

Telephone: (412) 831-4382
Telex: 247-634
Fax: (412) 831-4571
Chief Executive Officer: B. R. Brown
International Sales Manager: Walter E. Schrage
Domestic Offices: NORFOLK, VA: 201 Granby Mall, Suite 216, Norfolk, VA 23510 TEL. (804) 627-6261, FAX (804) 625-5088, TELEX 240403 CONSOL NORF; BALTIMORE, MD: Consolidation Coal Sales Company Terminal, 3800 Newgate Avenue, Baltimore, MD 21224 TEL. (301) 631-7000, FAX (301) 631-7022
International Offices: BELGIUM: Godefroid Coal Trading and Shipping S.A., 37-41 Rue du Congress, Brussels 1000 TEL. 011-32-2-218-7220, FAX 32-2-218-6192, TELEX 846-21434

Consolidation Coal Company (Consol) operates 25 underground and surface mines in nine states and Alberta, Canada. The company is the second-largest coal producer in the United States and holds 6.1 billion tons in steam and metallurgical-grade coal reserves. More than 80 percent of Consol's annual production of more than 55 million tons steam coal for electricity generation. Nearly 11 million tons of high-grade metallurgical coal is produced annually. Consol mines are linked to major rail routes or the inland waterway for shipment to domestic customers and to exporting points on both coasts and the Gulf of Mexico.

Product/Service	Description
Steam Coal	Consol has exported steam coal since the early 1900s. Today consol exports steam coal to eight countries from mines in northern West Virginia, southwestern Pennsylvania and eastern Kentucky. Exporting points are Consolidation Coal Sales Company's (CCSC) terminal in the Port of Baltimore or terminals in Hampton Roads, Virginia and New Orleans, Louisiana.
Metallurgical Coal	Consol exports high-quality metallurgical coals from mines in southwestern Pennsylvania, West Virginia and Virginia. Low and mid-vol coals from southern Appalachian reserves are rail-shipped to Norfolk, Virginia for export, and mid- to high-vol coal through Newport News, Virginia. Pittsburgh Seam high-vol is shipped through CCSC's Baltimore terminal via New Orleans.
Coal Research	Consol maintains the U. S. coal industry's largest and most complete coal research organization and facilities. Located near Pittsburgh, Pennsylvania, Consol Research & Development works to improve coal mining, processing and combustion technologies. Consol R&D's 1.5 million BTU/hr. pilot combustor, the only one of its kind in the world, can simulate a wide range of boiler configurations to help customers make optimum fuel choices.
Transportation	Consol maintains a transportation and distribution group which coordinates coal shipments and quality control. Consol also provides complete terminaling services through CCSC's Baltimore terminal or through contractual arrangements with other exporting facilities. CCSC's terminal is serviced by two major U. S. rail carriers and has on-site ground storage of 12 million tons, which allows extensive coal blending capabilities and eliminates demurrage charges.

Dominion Energy
Federal Reserve Building
P. O. Box 26532
Richmond, VA 23261

Telephone: (804) 775-5814
Fax: (804) 775-5720, 775-5822
Chief Executive Officer: Ronald H. Leasburg
International Sales Manager: John J. Frank
International Offices: Please contact company headquarters for further information.

Dominion Energy is the cogeneration power development subsidiary of Dominion Resources, Inc., a $10 billion holding company headquartered in the capital of the state of Virginia. Dominion Resources owns and operates one of America's largest electric utilities, Virginia Power, which serves more than 1.7 million homes and businesses, over 32,000 square miles, with 12,000 megawatts in electric generating capacity. Dominion Energy, established in 1987, has interests in United States projects utilizing various technologies and fuel sources that total more than 2,000 megawatts. It brings full-service capability to the growing global market.

Product/Service	Description
Facility Construction	Dominion Energy offers full construction services, including project design, and legal and environmental permitting. It brings the combined experience and expertise of a staff that has overseen the creation and modification of some of America's most technologically advanced generating systems.
Facility Operation	After construction Dominion Energy offers full operations services.
Financing	Through its Dominion Resources, Inc., parent company, Dominion Energy has ongoing working relationships with more than 80 investment and commercial banks in the United States, Europe and Asia. It has secured financing for major energy projects around the United States.

Electric Fuels Corporation
235 Third Street South
P. O. Box 15208
St. Petersburg, FL 33733

Telephone: (813) 892-2700
Telex: 514168
Fax: (813) 892-2702
Chief Executive Officer: Richard D. Keller, President
International Sales Manager: Ernst A. Upmeyer III, Vice President, Albert W. Pitcher, Vice President

Electric Fuels Corporation (EFC) through its many subsidiaries is involved in coal mining, coal transportation, coal transfer facilities, fuel research in the coal area and the development of coal-based alternative fuels. Electric Fuels has developed a coal management system that has proved to be successful and highly competitive in supplying coal from mine site to the customer. This fully-integrated system is composed of five essential groups: coal, operations, marine and terminaling, alternative fuels and international marketing. The integration of these groups under Electric Fuels' management provides the necessary exposure to all phases of the coal industry.

Product/Service	Description
Advanced Utilization	With access to experts in virtually every application of coal combustion, Electric Fuels can provide qualified technical know-how in the areas of ash utilization, mineral and metal recovery from ash and in ash disposal. From start to finish, Electric Fuels' customers are assured of experienced assistance with all their coal handling needs. EFC has developed services ranging from field and laboratory functions to advanced computer support.
Coal Derivatives	Electric Fuels' involvement in the development of alternative fuels is through COMCO, a leader in their manufacture of coal-oil mixture (COM), coal-water mixture (CWM) and petroleum coke-oil mixture (PETCOM). Coal-liquid mixtures are produced at COMCO's Port Sutton, Florida facilities. REDICOAL, COMCO's new powdered coal product for industrial and utility use, has proved to be an economical replacement for fuel oil and natural gas.
Coal Mining	The coal group is responsible for the mining and preparation of coal from sites containing approximately 215 million tons of reserves located in the states of Virginia, West Virginia and Kentucky. Origin points have capability to load both trucks and unit trains.

(Continued on next page)

Electric Fuels Corporation (Continued)

Coal Transport	Marine Equipment Management Corporation, a wholly-owned subsidiary, handles coal from all inland river origins in either single barge or unit tow lots. Standby loading is available. Covered barges are available. MEMCO also offers switching and fleeting services at various Mississippi River ports. Dixie Fuels Limited offers handling, storing, terminaling and transporting bulk cargo by sea-going marine transportation equipment.
Facility Operations	International Marine Terminals is a bulk materials handling facility strategically located near the mouth of the Mississippi River. The recently expanded terminal consists of modern facilities, ground storage/blending and a coal testing laboratory operated by an independent agent. Hatfield Terminals operates transfer facilities in Cincinnati, Ohio, on the Ohio River and near Charleston, West Virginia, on the Kanawha River. Kentucky May Coal operates a coal transfer facility on the Big Sandy River.

Eneract Management Services, Inc.
Westside Plaza
550 Bailey Avenue #220
Fort Worth, TX 76107

EMS
Eneract Management Services, Inc.

Telephone: (817) 334-0053
Fax: (817) 887-0958
Chief Executive Officer: Paul Corwin
International Sales Manager: J. William Caldwell, P.E.
Domestic Offices: HAYWARD, CA: 23575 Cabot Blvd. Suite 205, Hayward, CA 94545 TEL. (415) 732-0118

Eneract Management Services, Inc. (EMS) provides a full scope of technical and managerial services to clients in the power production industry. EMS staff members have strong backgrounds in the energy industry and practical experience in plant operations, plant management and maintenance support. Typical EMS services include plant engineering and management support, plant operation and maintenance, operator training, system descriptions, O&M manual and operating procedure development, and industrial safety programs. In addition, EMS maintains contacts with numerous affiliates in the power production industry to provide support in specialty areas.

Product/Service	Description
Plant Operation	EMS provides experienced personnel for plant start-up, testing and repair and for short and long term plant operation or operating staff augmentation.
Plant Maintenance	EMS schedules and performs equipment maintenance to minimize downtime. In addition, EMS develops equipment maintenance procedures and maintenance management programs.
Plant Management	EMS assists plant management in planning, developing and implementing plant administrative and operating procedures and maintenance programs. In addition, EMS provides O&M budget forecasting and staffing requirements analysis.
Operator Training	EMS develops plant specific, performance-based equipment and systems training, emergency preparedness training, industrial safety training, and operator/technician qualifications.
Technical Writing	EMS develops plant specific O&M manuals, system descriptions, operating procedures and operator training manuals.

Foster Wheeler Corporation
Perryville Corporate Park
Clinton, NJ 08809-4000



Telephone: (201) 730-4000
Fax: (201) 730-4360
Chief Executive Officer: L. E. Azzato
International Sales Managers: B. P. Stephan, I. G. Lutes
Domestic Offices: ATLANTA, GA; BOSTON, MA; CHARLOTTE, NC; CHICAGO, IL; DENVER, CO; HOUSTON, TX; KANSAS CITY, MO; LOS ANGELES, CA; NEW ORLEANS, LA; NEW YORK, NY; PHILADELPHIA, PA; PITTSBURGH, PA; WASHINGTON, DC; AND WINTER PARK, FL
International Offices: AUSTRALIA: TELEX 152838 REWOP AA; CANADA: TELEX 055-60042; CHINA: TELEX 210396 REWOP CN; COLUMBIA: TELEX 396-43254 REWOP CO; ENGLAND: TELEX 851-263984; FRANCE: TELEX 842-210 782; HONG KONG: TELEX 37512 FWAL HX; ITALY: TELEX 843-310548; JAPAN: TELEX 2323192; NETHERLANDS: TELEX 844-34264; NIGERIA: TELEX 22365 FOSWLD NG; SINGAPORE: TELEX RS 39292 FWINTL; SPAIN: TELEX 83122275; contact the main office for further information.

Foster Wheeler Corporation is an engineering, manufacturing, construction, real estate development and service organization with 23 subsidiaries operating worldwide. Founded in 1927, it is currently one of the world's largest engineering and construction organizations. International activities are conducted by affiliates in England, France, Italy, Spain, and Canada. U.S. based industrial subsidiaries supply diversified engineering technologies and allied equipment. Foster Wheeler Energy Corporation, a major United States subsidiary, designs, fabricates, maintains, manufactures, and constructs steam generating equipment for electric utilities and industry. This Foster Wheeler subsidiary furnishes condensers, feedwater heaters, and other major auxiliary equipment for coal, oil, and gas-fired installations in the United States and abroad. Foster Wheeler's application of alternate energy sources have advanced the state of the art. Current projects involve refuse-to-energy plants, the cogeneration of industrial steam and electric power, a proprietary sludge drying process and high technology heat recovery equipment.

Product/Service	Description
Advanced Utilization	Foster Wheeler Development Corp., Livingston, NJ (201) 535-2300
Architecture/Engineering (A&E)	Foster Wheeler USA Corp., Clinton, NJ (201) 735-4770
Boiler Equipment	Foster Wheeler Energy Corp., Clinton, NJ (201) 730-4310
Coal Derivatives	Foster Wheeler USA Corp., Clinton, NJ (201) 735-4606
Facility Construction	Foster Wheeler Constructors, Clinton, NJ (201) 735-5076
Facility Operation	Foster Wheeler Management Operations, Ltd., Houston, TX (713) 872-6911
Financing	Foster Wheeler Power Systems, Clinton, NJ (201) 730-4000

Fuel Tech
61 Taylor Reed Place
Stamford, CT 06906



Telephone: (203) 359-1320
Fax: (203) 359-9317
Chief Executive Officer: George F. Shulof
International Sales Manager: Eugene J. Capriotti
Domestic Offices: SANTA FE SPRINGS, CA: Mr. M. R. Mulhern, 9926 Pioneer Blvd, Santa Fe Springs, CA 90670 TEL. (213) 942-0585, FAX (213) 942-1240; SAN FRANCISCO, CA: Mr. Michael Gamburg, 750 17th Ave, Suite 102, San Francisco, CA 94121 TEL. (415) 221-6177, FAX (415) 221-6178
International Offices: ENGLAND: Mr. Jeremy Peter-Hoblyn, 28A Cadogan Square, London SW1X OJH. TEL. 1-581-2051, FAX 1-589-8108; WEST GERMANY: Mr. Joachim Von Bergmann, Frankfurter Strasse 33-35, Eschborn 6236 TEL. 49-6196-48613, FAX 49-6196-42012; JAPAN: Dr. H. Saito, Kitano Maru Residence, 3rd Floor, 2-3-9 Kudan Kita, Chiyoda-Ku, Tokyo 102

(Continued on next page)

Fuel Tech (Continued)

Fuel Tech is a dynamic high-technology company dedicated to the development and commercialization of new chemical and mechanical systems to reduce emissions and improve the efficiency of fossil-fueled combustion systems. Founded in Boston, Massachusetts in 1981, Fuel Tech provides a unique systems approach to the solution of air pollution problems for customers in the industrial, marine, petroleum and electric utility markets.

Product/Service	Description
Boiler Equipment Facility Operation	The NO_xOUT Process is a NOx reduction technology for utility and industrial boilers which involves the injection of enhanced urea and other chemicals into the combustion gases of a boiler. NO_xOUT provides significant reductions over a wide range of combustor types, temperatures, and fuels. It is easily retrofitted, requires minimum space, and is estimated to cost one-fifth that of SCR.

General Physics Corporation
6700 Alexander Bell Drive
Columbia, MD 21046

GENERAL PHYSICS CORPORATION

Telephone: (301) 290-2300
Telex: (TWX): 7108622878
Fax: (301) 290-2600
Chief Executive Officer: William E. Kuhlmann
International Sales Manager: Herman P. Stone II
Domestic Offices: LOCKPORT, NY: 111 Main Street, Lockport, NY 14094
International Offices: SINGAPORE: Robert Young, 80 Marine Parade Road #11-01, Parkway Parade, 1544 TEL. 343633, FAX 65-3457938; CANADA: Justin Callahan, POB 202, 9915 108th Street, Edmonton, Alberta T5K 2G8 TEL. (403) 466-6145, (403) 468-5611

General Physics Corporation is a mature and established company that provides diverse technical services to industries and government. General Physics employs over 1800 people and had over $121 million in annual sales in 1988. We are a high-technology company organized to respond to individual client needs. General Physics has a well qualified staff of former power plant supervisors, managers and operators. They understand the problems and concerns of the coal industry. We have developed a methodology that has been proven effective in solving plant problems. The key to our performance has been enthusiasm, imagination and performance.

Product/Service	Description
Operations Support Services	The services in operations support include: audits of coal sampling equipment and sample preparation, combustion technology improvement programs, coal handling system descriptions, coal handling operating procedures, alarm/abnormal response procedures, start up procedures and support, coal handler qualification programs, operations audit, human factors assessments, thermal performance monitors.
Training Services	We are also involved in all aspects of training plant personnel with particular emphasis on developing training programs based upon specific client needs. These include: training program needs analysis, coal handler training program design and development, development of classroom, self-taught laboratory, in-plant, simulator and on-the-job training programs for coal handling systems, preparing training materials, conducting training programs, developing operations and maintenance qualification and requalification programs, administration materials, coal handling systems training, advanced operator training (combustion efficiency), simulator training.
Engineering Services	We pride ourselves in providing engineering services which are technically sound and utilize good human factors engineering principles. General Physics would be pleased to offer the following engineering services in support of your facility: operations engineering, human factors engineering, startup and testing, preparation of training program administrative materials.
Maintenance Services	General Physics has been involved in providing maintenance services since 1971. These maintenance support and maintenance training services include: preventive/corrective maintenance procedures-coal unloaders, stacker reclaimers, crushers, conveyor belts, coal silos, feeders, other equipment; mechanical maintenance training of coal equipment; electrical maintenance training of coal equipment; instrument maintenance training of coal equipment. Technical repair specifications, maintenance planning support, outage management and support, diagnostic testing and inspection, preventive maintenance programs, reliability centered maintenance programs, maintenance audits, preventive maintenance procedures, inspection and repair procedures, spare parts program.

Gould Energy
30 Clairmont Avenue
Thornwood, NY 10594



Telephone: (914) 769-7900
Fax: (914) 769-7905
Chief Executive Officer: Gregory Gould
International Sales Manager: Vincent Furtkevic
Domestic Offices: CRESSON, PA: Box 214, Gallitzin Road, Cresson, PA 16630 TEL. (814) 886-7400; TAMPA, FL: 505 South Falkenburg Road, Tampa, FL 33619 TEL. (813) 689-5785; GORMANIA, WV: P.O. Box 50, East, Gormania, WV 26720 TEL. (304) 693-7613; ST.LOUIS, MO: 11591 Page Service Drive, St. Louis, MO 63146 TEL. (314) 432-0414

For over eighty years, Gould has helped power utilities and coal producers answer one critical question: "Are we getting the BTUs we paid for?" Gould provides tighter asset control with its Fuel Management Information System, Electronic Auditing System and with professional, third party assessment of both coal and total system performance, including weighing, sampling and testing. Gould services are multi-disciplinary. They define quality assurance and accountability across the board. Gould gives operating managers the information they need for better control, conflict resolution, improved performance, and reduced emissions, as well as, documentation of a utility's cost effectiveness.

Product/Service	Description
Fuel Management Information System Facility Operation	A comprehensive system to manage the procurement, receipt, inventory, analysis and accounting for coal and other fuels.
Electronic Audit System Monitoring	A patented real time system of documenting the performance of material handling, sampling and weighing devices.
Technical Services	Sampling, testing, weighing and control services and consulting to give clients "Value Assurance".
Value Assurance Products	Mechanical Sample Divider, Video Training Systems, Bias Testing Software, to help the coal industry get the most value from its coal.

H. B. Zachry Company
P.O. Box 21130
San Antonio, TX 78221-0130



Telephone: (512) 922-1213
Telex: 76-7426
Fax: (512) 927-8060
Chief Executive Officer: H. B. Zachry
International Sales Manager: Robert E. Hood
International Offices: Please contact company headquarters for further information.

H. B. Zachry Company is a world leader in the construction industry with over sixty-five years of building a wide variety of construction projects. Including power, process, transportation, mining/minerals (lignite, fluorspar and "frac sand"), hydraulics/water works, general industrial/manufacturing, commercial, maintenance, and pipeline. Projects have been constructed in Alaska, Bangladesh, Canada, Chile, Greece, Kwajalien, Oman, Peru, Puerto Rico, Saudia Arabia, Sinai Desert, South Africa, Spain, and Thailand. By accommodating the owner's preference of design firms the Company has good relations with many engineering firms. The company also functions as consortium manager to provide complete design, construction, financing, and maintenance responsibilities.

Product/Service	Description
Contract Mining	Topsoil requirements, hydrologic balance, disposal of excess soil, coal or mineral recovery, mineral processing waste banks, environmental protection, pipelines, backfilling & grading, revegetation, Class I-III roads, special conditions.
Facility Construction	Loading facilities, storage and stockpile facilities, sheds, shops and other buildings, water treatment and water storage facilities, settling basins and impoundments, coal processing and other waste disposal areas, roads, railroads and other transport facilities.
Facility Operations & Maintenance	Operations plan, air pollution control plan, fish & wildlife plan, reclamation plan, diversions, protection of public parks & historic places, use of public roads.

Harris Group Inc.
P.O. Box 3855
Seattle, WA 98124

Harris Group Inc.

Telephone: (206) 382-7410
Telex: 15-2917
Fax: (206) 382-9645
Chief Executive Officer: Robert M. Harris, Chairman
International Sales Manager: John D. Logsdon
Domestic Offices: PORTLAND, OR: 1750 N.W. Front Avenue, Portland, OR 97209 TEL. (503) 228-7200; BELLINGHAM, WA: 1111 Cornwall Avenue, Bellingham, WA 98225 TEL. (206) 734-4944; APPLETON, WI: 4321 W. College Avenue, Appleton, WI 54914 TEL. (414) 749-4600
International Offices: CANADA: Fourth Floor, 233 West 1st Street, North Vancouver, B.C. V7M 1B3 TEL. (604) 985-6485

Backed by more than four decades of engineering experience, Harris Group Inc. has become widely regarded as a leader in engineering design for industrial situations. Our staff of approximately 500 includes professionals in all of the major engineering disciplines. Harris Group Inc. has the capability and capacity to handle both large and small projects from the very earliest stages through to the completion of construction. We routinely provide services for, but not limited to, the steam and metallurgical coal, cogeneration, and coal transshipment industries. Areas of expertise offered in coal handling are size reduction; screening and classification; blending and sampling; storage and reclamation; unit train and ship loading/unloading; conveying and transshipment.

Product/Service	Description
Specialized Coal Handling	Harris Group Inc. staff members have accumulated many years of experience in coal handling in the United States, Canada, and Europe. Services provided include project management, planning, engineering permitting, construction management, and startup and training assistance. Typical systems provided are: export terminals complete with dock facilities; automated stacking and reclaiming; shiploading and unloading with enclosed tubular conveyor galleries; overland conveyor systems; state-of-the art transshipment facilities with totally enclosed storage and conveying; general coal handling from mine mouth to preparation plant and beyond.

Indeck Energy Services, Inc.
1111 South Willis Avenue
Wheeling, IL 60090

INDECK
a FORSYTHE COMPANY

Telephone: (312) 520-3212
Telex: 28-3544
Fax: (312) 520-9883
Chief Executive Officer: Michael P. Polsky
International Sales Manager: Lawrence J. Kostrzewa
International Offices: Please contact headquarters for further information.

Indeck is an experienced developer, owner, operator and maintainer of cogeneration and power generation plants using coal, natural gas, oil and waste fuels. Together with Indeck Power Equipment Company, North America's largest renter and leaser of emergency boilers, the company has been serving industrial and utility steam, power and water treatment needs since 1960. Indeck's broad range of experience includes over 750 MW of generating capacity either operating, under construction or under contract in the U.S. and Canada, with international expansions underway in the U.K. and elsewhere.

Product/Service	Description
Project Development	Indeck will perform all activities from project conception to construction, including cycle design and analysis, siting, engineering, permitting, power and steam sales contracting, fuel supply acquisition and debt and equity financing.
Project Operation	For projects owned in whole or in part by Indeck, Indeck will hire and train operating staff, prepare and follow operating and maintenance budgets, operate the project at optimum economic efficiency and schedule and carry out overhauls and repairs.

Kaiser International Corporation
250 W. 5th St., Suite 125
San Pedro, CA 90731



Telephone: (213) 514-2880
Telex: 706746
Fax: (213) 514-3543
Chief Executive Officer: Richard E. Holdaway, President
International Sales Manager: James E. Holland, Marketing Manager

Kaiser International Corporation operates the Dry Bulk Facility in the Outer Harbor of the Port of Los Angeles at Berths 48-53. This facility was constructed in 1965 to handle the export of iron ore and coal to Japan. The facility has been used for extensive exports of coal, iron ore, copper concentrates, scrap steel, and petroleum coke as well as import cargoes. Kaiser International Corporation operates the facility providing diverse stevedoring services. Bulk materials are handled to or from ships, railcars, trucks or storage.

Product/Service	Description
Facility Operation	Coal is delivered to Kaiser International Corporation's facility in unit trains of up to one hundred cars which originate on the Denver Rio Grande and Western, Utah, Union Pacific, Santa Fe, and Southern Pacific Railroads from the states of Utah, Colorado, New Mexico, Arizona, and Wyoming. Import cargoes of coal have also been handled by Kaiser International Corporation.
Coal Transport	The coal loading Berths 49-50, operated by Kaiser International Corporation in the Outer Harbor of the Port of Los Angeles, have the deepest water of any coal loading berth in the United States. The facility berths have 51 Ft. (15.54M) of water depth available at Mean Lower Low Water (MLLW). Coal is unloaded from railcars by a rotary car dumper. Coal from the rotary car dumper is handled on a conveyor system that provides direct loading from railcar to ship, railcar to storage, and storage to ship. Fourteen acres of coal storage area provide 200,000 metric tons of live storage capacity. The facility has loaded and discharged coal cargoes of up to 125,000 metric tons. Coal is loaded to vessels by a conveyor feed shiploader traveling up to 680 feet along the dock and traversing in and out, allowing spout trimming of most cargoes. Machine trimming by bulldozer is available if required.

MSE, Inc.
P. O. Box 3767
Butte, MT 59702



Telephone: (406) 494-7100
Fax: (406) 494-7230
Chief Executive Officer: Donald R. Peoples
Chief Operating Officer: John M. Sherick
Domestic Offices: BUTTE, MT: Component Development and Integration Facility (CDIF), P. O. Box 3767, Butte, MT 59702 TEL. (406) 494-7100; MultiTech Services Division, P. O. Box 4078, Butte, MT 59702 TEL. (406) 723-8213, FAX (406) 723-9377

MSE, Inc., operates the Component Development and Integration Facility (CDIF)--the largest coal-fired magnetohydrodynamic (MHD) testing facility in the world. The CDIF can also be configured to support engineering-scale development testing programs in other coal and energy technologies. MSE, Inc., provides services in process engineering, facility management and operation, plant engineering and power system design and analysis. MSE offers environmental permitting, monitoring and compliance services. MSE's EPA -- certified laboratory performs organic and inorganic analyses and offers chemical consulting and problem solving services.

Product/Service	Description
Coal Research and Development	Research and development in magnetohydrodynamics (MHD), coal handling and processing, high temperature combustion, and experimental hardware assembly and testing. Full analytical and date services are available.
Engineering Services	Facility and process design and engineering for coal and fossil fuel systems and power plants, including coal handling, pulverizing, inerting and drying, combustion, and instrumentation and control.
Facility Management and Operation	Facility management, startup, and operation to ensure reliable performance in compliance with approved procedures and safety, and environmental regulations.
Laboratory Services	EPA-certified laboratory equipped to sample and perform organic and inorganic analyses on a wide range of sample types including water, soils, coal, tailing, ores, hazardous waste, and airborne pollutants.
Environmental Services	Full range of environmental services for mining, coal processing, and power industries.

The M.W. Kellogg Company
Three Greenway Plaza
Houston, TX 77046-0395

Telephone: (713) 960-2000
Telex: 166385 MWKHOC
Fax: (713) 960-2032

The M.W. Kellogg Company

Chief Executive Officer: Donald C. Vaughn, President
International Sales Manager: J. Albert Stanley, Senior Vice President of Worldwide Sales
Domestic Offices: DARIEN, CT; WASHINGTON, DC
International Offices: ENGLAND: M.W. Kellogg Limited, The M.W. Kellogg Building, Stadium Way, Wembley, Middlesex, HA9 OEE TEL. 44-1-903-8484; BRITISH WEST INDIES: Cayman Islands; ARGENTINA: Buenos Aires; SINGAPORE; PEOPLE'S REPUBLIC OF CHINA: Beijing; INDONESIA: Jakarta; MALAYSIA: Kuala Lumpur

The M.W. Kellogg Company, an international, technology-based subsidiary of Dresser Industries, Inc., is a world leader in the engineering, procurement, construction and commissioning of chemical, petrochemical, fertilizer, gas processing, refining, and computer integrated manufacturing projects. Additionally, Kellogg provides operations and maintenance capabilities. Kellogg is also on the forefront of clean fuels technology with the acquisition of the KRW coal gasification process and development of clean air technology. The company has completed more than 3,000 major projects and many smaller projects worldwide.

Product/Service	Description
Coal Gasification	Kellogg's KRW coal gasification process is capable of operating at high conversion on a wide range of coals. Feeds ranging from lignites and brown coal to high and low volatile bituminous coal have been tested in the Waltz Mill, PA pilot plant using both air and oxygen as oxidants and limestone and dolomite as in-bed sorbents for sulfur. The process can be used to produce low- or moderate-BTU gas for synthesis or for power generation. Hot gas clean-up using Zinc ferrite yields low SOx emissions, and low-BTU gas yields low NOx in combined cycle power plants.
Pressurized Circulation Fluid Bed Combustion	Kellogg's PCFBC processes pulverized coal and limestone or dolomite in a high velocity reactor, which completely combusts the coal while yielding very low SOx and NOx emissions. The pressurized flue gas is expanded to produce power in a combined cycle mode. The sorbent is fully oxidized in the reactor, eliminating subsequent treatment of the ash and spent sorbent for disposal. The technology is a low-cost alternative for cogeneration and power applications.
Flue Gas Desulfurization	Kellogg's flue desulfurization technology utilizes a limestone sorbent in a horizontal scrubber. The technology has been proven in commercial operation on large utility boilers feeding both high and low sulfur U.S. coals. The process features high sulfur removal (greater than 90%) and high calcium utilization. Magnesium or dibasic acid addition is often used to enhance the system. A special feature of the horizontal Weir scrubber is both low flue gas pressure drop and low sorbent circulation, resulting in significant operating advantages.
Design, Procurement, Construction and Plant Services	Kellogg offers EPC capabilities as well as operations and maintenance services on a worldwide basis.
Research and Development Services	Kellogg has bench-scale and pilot plant facilities for the development and testing of coal in gasification and combustion modes. Kellogg's coal lab allows the analysis of coal and ash properties. The company can also prepare design studies for a wide range of process and power applications based on the specific coal properties.

National Mines Corporation
P.O. Box 12022
333 W. Vine Street, Suite 1000
Lexington, KY 40579

National Mines Corporation

Telephone: (606) 233-4141
Telex: 213475
Fax: (606) 281-8757
Chief Executive Officer: Vaughn R. Knapp, President
International Sales Manager: Herman L. Mays, Vice President, Marketing and Sales

A subsidiary of National Steel Corporation, the company began coal production in the early 50's as an integrated source for cokemaking. Today, 80% of shipments are to commercial domestic and export receivers, offering various high-quality grades of metallurgical, sized (industrial), and thermal coals. Mines and preparation facilities are located in Washington Co., PA, Wyoming Co., WV, and Knott Co., KY, with site capacities of from 500,000 to 1.6 million tons per year. Unit-train loading capability at PA and KY locations. Coals are deep-mined and tend to be low-to-mid sulfur content. UMWA-affiliated and professionally staffed.

Product/Service	Description
Coal Exporters	Knowledge of international marketplace-mainland Europe, Scandinavia, Pacific Rim, Canada, South America-port facilities, transportation, storage, handling.
Coal Mining	Full range of experience, including exploration, development, all aspects of mine and plant operation, reclamation, safety.
Facility Operation	Capable of previously enumerated aspects of management and engineering.

NUS Corporation
910 Clopper Rd.
Gaithersburg, MD 20877

NUS CORPORATION

Telephone: (301) 987-6543
Telex: 710-828-0540 (NUWASH)
Fax: (301) 258-8764
Chief Executive Officer: Charles F. Jones
International Sales Manager: John T. Stone
Domestic Offices: 25 Offices within the U. S.
International Offices: JAPAN: Japan NUS Co., 7-1, Nishi-Shinjuku 2-Chome, Shinjuku-Ku, Tokyo 163 TEL. 81-3-343-1775; FEDERAL REPUBLIC OF GERMANY: NIS Nuklear-Ingenieur-Service GMBH, Donaustrabbe 23, D-6450 Hanau-1 TEL. 49-6181-10940

Headquartered in Gaithersburg, MD, NUS Corporation is an international engineering and environmental consulting firm with more than 1900 employees. NUS provides consulting, engineering, hazardous waste management, training, and laboratory services for clients whose operations impact broad energy and environmental concerns. NUS provides complete environmental services, power plant support services, comprehensive training programs for power plant operations and maintenance personnel (Spanish, Portuguese, English) and design/engineering services.

Product/Service	Description
Facility Operation	NUS provides a broad range of consulting and field support services specially designed to enhance efficiency and cost-effective operations at fossil-fueled power generating plants and related facilities. Services involve plant operations and maintenance assistance, plant information management, personnel training, plant chemistry consulting and management consulting. Specific services include: operating, maintenance administrative and test procedure development; plant operating manual development; environmental compliance manuals; systems description development; vendor information development and revision; plant startup assistance; construction management of plant modifications and backfits; maintenance management; chemistry program review; training program design; skills instruction. NUS also provides architect/engineering services for fossil plant modification and design backfit requirements.
Facility Construction	
Architecture/Engineering	

Oglebay Norton Company
1100 Superior Ave.
Cleveland, OH 44114

Telephone: (216) 861-3300, (216) 861-8707
Telex: 62836077 ONCO-CLEVE
Fax: 216-861-2863
Chief Executive Officer: Renold D. Thompson
International Sales Manager: J. Douglas Loughead

Minerals, lake transportation and manufacturing are the major areas in which Oglebay Norton serves steelmakers, utilities, chemical and glass producers, manufacturers and other basic industries. Produces Ohio No. 8 Seam Coal (Steam) with daily production capabilities of 4000NT. Deep Mine located on NS Railroad at St. Clairesville, Ohio. Twelve thousand contiguous acres of coal reserves located in Boone County, WV. Five seams with average quality being 12,500 BTU's and 1% sulfur. Production is scheduled for fourth quarter 1989.

Product/Service	Designation	Description
Coal Mining	Ceredo Dock	Barge loading facility located near Huntington, WV on the Ohio River. Jointly served by CSX and NS railways (unit train capable) with annual capacity of 8,000,000 tons.
Coal Transport		
Facilities Construction	Licking River Terminal Co.	Barge loading facility located near Cincinnati, OH. Unit train capable and served by the CSX railway. Annual capacity of 8,000,000 tons.
Facilities Operation	Columbia Transportation Division	Offers a full range of 13 lake carriers to handle bulk materials on the Great Lakes.

Pyropower Corporation
5120 Shoreham Place
San Diego, CA 92122

Telephone: (619) 458-3000
Telex: 506-170
Fax: (619) 458-9132
Chief Executive Officer: Eric J. Oakes
International Sales Manager: Callixtus J. Aulisio

Pyropower Corporation, a subsidiary of A. Ahlstrom Corporation, provides product development, engineering, design, procurement, construction, start-up, operations, and after market services for the AHLSTROM PYROFLOW circulating fluidized bed boilers. These boilers are for steam and electricity generation using solid fuel including, high moisture, high ash and high sulfur fuels in an environmentally safe manner. Successful on-schedule construction and reliable operating experience with PYROFLOW has been thoroughly demonstrated with over 75 units in commercial operation or under construction worldwide.

Product/Service	Description
Boiler Equipment	Pyropower offers complete fluidized bed boilers with auxiliary equipment plus additional balance of plant equipment.
Facility Construction	Pyropower offers complete construction of fluidized bed boilers with auxiliary equipment plus additional balance of plant equipment.
Facility Operation	Pyropower provides complete services to operate circulating fluidized bed boiler plants.
Financing	Pyropower provides full capabilities to arrange project financing for power projects.
Advanced Utilization	Pyropower is developing advanced utilization of solid fuel fired boilers such as pressurized fluidized bed boilers.

Qualtec, Inc.
11300 U.S. Highway 1, Suite 500
Palm Beach Gardens, FL 33408



Telephone: (407) 775-8300
Fax: (407) 775-8301
Chief Executive Officer: Roger A. Eatman, President
International Sales Manager: Fred Trice, Director, Special Projects
Bob Bartz, Director, Technical Services

QUALTEC, INC. is a subsidiary of FPL Group, Inc. (the holding company which also owns Florida Power & Light Co.). Established in 1985, QUALTEC's utility-related businesses provide specialty support services to U.S. and international electric utilities, independent power producers, and architectural/engineering firms.

Product/Service	Description
Facility Operation	Project management; cost/estimating; planning & scheduling systems; construction management; professional and technical contract labor; power plant equipment inspection, testing, maintenance and labeling; training; procedures development; operations audits; maintenance/outages/backfit services.
Facility Construction	

Resource Technical Services
P.O. Box 2882
Toledo, OH 43606



Telephone: (800) 551-7206
Fax: (419) 535-5602
Chief Executive Officer: Roger Felthous
International Sales Manager: Jim McCrary
Domestic Offices: MORGAN HILL, CA: Thomas Grinnell, P.O. Box 295, Morgan Hill, CA 95038-0295 TEL. (408) 778-2476, FAX (408) 778-1386

Resource Technical Services has provided engineering, technical training and personnel services to the power industry since 1981. Engineering Services include instrumentation and control system upgrades and development of system specific training devices. Training services include development of computer managed instruction programs, slide/sound and video programs, and text material (student manuals, lesson plans, exams, etc.). Instructors are also available for instruction. Personnel services includes supplying technical and engineering personnel for short or long term assignments. The company currently has contracts with the NRC, DOE, Professional Trade Organizations and U.S. utilities.

Product/Service	Description
Process Control Simulators	Provides a functional replica of a level, flow or temperature process system. Enables students to study control system theory and applications using a small portable unit. The simulators illustrate system responses to changes or adjustments. Two models are available.
Math Computer Managed Instruction	This program consists of 19 lessons ranging from basic number lines through trigonometry. A powerful router enables instructors to assign lessons in a sequence or index type format. The router also records student test scores, objective achievement, permits students to write messages to the instructor while in the program and provides branching capabilities. The program is highly regarded by DOE TRADE organization.
Woodward Governor Simulator	This training device permits students to work on an operating control loop within a controlled setting. The device also permits students to develop skills from simple instrument calibration to complex control loop tuning and troubleshooting. The loop components are plant specific devices with front panel access for adjustment and observation. Individual instruments may be repaired, aligned and calibrated.
Motor-Operated Valve Management System (MOVMS)	A microprocessor controlled instrument that precisely and repeatedly controls the magnitude and duration of force applied during value backseating operations. The unit remotely controls the motor operator at the Motor Control Center. Using the Value Operating data, the device automatically controls the valve in backseat operation and stops valve motion precisely at a programmed predetermined limit.
Training Services	Develop and present site specific courses to clients format. Job analysis, task analysis and auditing services also available.
Engineering Services	Design, construct and install plant instrumentation system upgrades and training simulators.
Personnel Services	Provide technical, operations, maintenance and engineering personnel on a short or long term contract basis.

Sheppard T. Powell Associates
1915 Aliceanna Street
Baltimore, MD 21231

Telephone: (301) 685-3210
Fax: (301) 327-7506
Chief Executive Officer: John W. Siegmund

Sheppard T. Powell Associates has been furnishing consulting services in the field of water treatment and corrosion control for over sixty-five years. We are strictly a consulting services organization that neither manufactures nor markets chemicals and equipment used in water treatment. Our position of independence and objectivity in the practice of water treatment consultation is widely known in the utility and private industry. Independent consultants to users of water and steam for over 65 years: steam and water cycle audits; corrosion assessment and control; startup and chemical cleaning assistance; chemical cleaning assistance; chemical and metallurgical services - high purity water analyses; training; emergency in-plant support; water/waste treatment and management; environmental investigations and permitting assistance; and water resources selection and evaluation.

Product/Service	Description
Boiler Equipment	Consulting services relating to review of boiler water, steam cycle and cooling water chemistries, inspection of equipment, trouble shooting and recommendations for optimizing operations.
Facility Operations	Consulting services include "in plant" inspections and studies designed to define problem areas and offer recommendations to correct and optimize water related operations of all types including coal pile drainage wastewater treatment.

Ultrasystems Engineers and Constructors Inc.
16845 Von Karman Avenue
Irvine, CA 92714

Telephone: (714) 863-7000
Telex: 69-2356
Fax: (714) 852-8863
Chief Executive Officer: John Coyle
International Sales Manager: Joaquin Perez

Ultrasystems Engineers and Constructors Inc. (UEC) is a subsidiary of Hadson Power Systems. UEC provides engineering, construction, and turnkey services for a wide range of power and energy projects. Coal, gas and biomass fueled power plants in the range of 1-150 MWe have been successfully completed. UEC also offers several proprietary process technologies in coal and gas treatment. The Power Systems Group is adept and willing to participate in projects from initial development to turnkey engineering and construction through operation.

Product/Service	Description
Coal Coking	Mansfield Carbon Products coal coking and gasification units utilize simple traveling grate stoker furnaces to produce chemical quality coke and gas in a continuous process. Combined heat recovery units can provide economical process steam for a variety of applications.
Gas Desulfurization	The Hiperion gas desulfurization process utilizes a low energy catalyst to remove hydrogen sulfide from waste gas streams. The sulfur produced can then be converted into a chemical grade sulfur product with a small additional capital investment.
Gas Reforming	The Rentec process reforms waste gas streams to create low ash diesel fuels while eliminating flare problems. Even recovery of landfill gas streams may prove economical utilizing this process.
Engineering	A full range of engineering services is available including civil, structural, mechanical, instrumentation and electrical specialties. Complete support group services are also offered and include purchasing, expediting, scheduling and project and construction management.
Construction	Merit shop construction services are independently marketed for power and process related projects in the $1-60 million dollar range. Experienced staff construction managers and lead personnel utilize locally trained manpower for project execution.

United Engineers & Constructors Inc.
30 South 17th Street
P.O. Box 8223
Philadelphia, PA 19101

United Engineers & Constructors
A **Raytheon** Company

Telephone: (215) 422-4400
Telex: 83-4203
Fax: (215) 422-4648

Chief Executive Officer: Gunnar E. Sarsten
International Sales Manager: Harold H. Wilson, Jr.
Domestic Offices: BOSTON, MA: 100 Summer St., Boston, MA 02110 TEL. (617) 338-6000; CHICAGO, IL: 1430 Branding Lane, Suite 125, Downers Grove, IL 60515 TEL. (312) 515-2500; DENVER, CO: 700 S. Ash St., P.O. Box 5888, Denver, CO 80217 TEL. (303) 758-1122; PITTSBURGH, PA: Penn Center East, 600 Penn Center Blvd., Pittsburgh, PA 15235 TEL. (412) 825-4400; WINSTON-SALEM, NC: 900 NCNB Plaza 1022 W. 3rd St., Winston-Salem, NC 27101 TEL. (919) 748-0431
International Offices: ENGLAND: Badger Catalytic Ltd., C.I. Tower, St. George Square, High Street, New Malden, Surrey, KT3 4HH TEL. 1-949-0055

United Engineers & Constructors, a wholly-owned subsidiary of Raytheon Company, ranks as one of the top ten engineering, construction, and contract maintenance firms in the U.S. It was founded in 1928 and has over 5,000 employees serving a wide range of industries including power, metals, chemicals and biotechnology, electronics, aerospace, mining, petroleum and gas processing, general manufacturing and government.

Product/Service	Description
Architecture/Engineering	All phases of engineering of coal-fired power generation plants including fluid bed combustion, environmental engineering licensing, and waste management. Capabilities include feasibility studies, cost estimates, preliminary engineering, conceptual design, detailed design, and procurement.
Facility Construction	Every type of construction arrangement from direct hire to complete subcontract. We can provide all construction services including field engineering, labor relations, safety programs, quality assurance, project controls, expediting, cost management, and construction inspection.
Facility Operation	Operation and maintenance activities of fossil-fueled plants including plant life extension, modifications, retrofits, testing and startup, operator training, and energy economics.

Utility Fuels, Inc.
P.O. Box 539
Houston, TX 77001

Telephone: (713) 888-4500
Telex: 763867
Fax: (713) 888-4539
Chief Executive Officer: F. K. Smith
International Sales Manager: Lawrence J. Rogers
Domestic Offices: HOUSTON, TX: 11 Greenway Plaza, Suite 800, Houston, TX 77046 TEL. (713) 888-4500
International Offices: Please contact Houston headquarters for further information.

Utility Fuels, Inc. is one of the leading coal providers in the United States, delivering over 17 million tons per year to six electric generating units. The company owns lignite reserves and mining equipment and manages the mining and procurement of coal and other minerals. The company also owns approximately 2,400 coal-carrying railcars and manages one of America's largest railroad freight agreements. UFI owns and operates materials handling systems and provides training and technical services for operators of mining, materials handling and electric generating facilities. Organized in 1973, Utility Fuels is a subsidiary of Houston Industries, an NYSE holding company with over $10 billion in assets.

Product/Service	Description
Coal & Minerals Supply	Utility Fuels is responsible for overseeing the mining of lignite reserves and manages contracts for the procurement of coal and minerals.
Transportation & Equipment	The company owns and maintains railcars and manages freight agreements for the delivery of coal and minerals.
Materials Handling	UFI owns, operates and maintains systems for unloading, storing, blending, crushing and conveying coal and lignite.
Operations Services	The company provides training project management and engineering services (including planning, scheduling and documentation) for operators of mining, materials handling and electric generating facilities.

Xcel Group, Inc.
1126 S. 70th Street
Suite N-206
West Allis, WI 53214

Telephone: (414) 475-4001
Telex: 269441
Fax: (414) 475-3578
Chief Executive Officer: Gerald T. Petersen
International Sales Manager: Paul S. Gurski

XCEL GROUP INC.

Process engineering firm with extensive background in coal technology process development to include the specification, design, construction, start-up and operation of coal processing equipment ranging from bench to commercial-scale facilities. In 1988, Xcel was awarded a design, supply and test NATO-funded contract in international competition for an R&D gasification facility to be located in Athens, Greece. Technical support services include feasibility assessments, U.S. souring of equipment, custom equipment design, market research and application studies. Particularly knowledgeable in U.S. utility market "clean fuel" needs and combined cycle applications. Xcel is readily accessible via the World Trade Council electronic network - address code: XCEL G.

Product/Service	Description
Technology/Evaluations	Evaluations of emerging and commercially mature technologies to include technical and economic evaluation for specific market applications.
"Clean Coal" Applications	Investigation of a specific technology or competing technologies for utility-scale or large industrial power generation applications.
Equipment Souring/Design	Identification of U.S.-based sources to meet specific processing needs or custom design and supply required equipment.
Operations Support	Start-up and operational procedures development and problem solving.

Freight Forwarders: Firms providing brokerage services in domestic and international transport.

Anchor International
P.O. Box 28387
1703 East Joppa Road
Baltimore, MD 21234

Telephone: (301) 882-6400
Telex: 469145 Anchor Bal C1
Fax: (301) 882-2192
Chief Executive Officer: Donald K. Bollhorst, President
Export Manager: George Lijeron
Import Manager: Donald K. Bollhorst
Domestic Offices: BALTIMORE, MD: U.S. Customs House, Suite 419, 40 South Gay Street, Baltimore, MD 21202 TEL. (301) 547-0340; HANOVER, MD: BWI Commerce Park, 2609 Cabover Drive, Suite 4, P.O. Box 546, Hanover, MD 21076 TEL. (301) 760-0888

Founded by the current President in 1972, Anchor International offers the full range of ocean and air freight service for importers and exporters. Anchor International is fully automated and ABI certified with EDI activation pending. IAN International, a joint venture, has been in operation at BWI Airport since 1987.

Product/Service	Description
Freight Forwarders	Our services encompass arrangement of freight forwarding and clearance from origin door to destination door including filing of U.S. Customs documentation, transportation of freight, and delivery to consignee. With our affiliates worldwide, we can assure most competitive pricing and timely completion of arrangements.

Gunther George Schmid Associates, Inc.
2839 El Presidio Street
Carson, CA 90810-1120

GGSA

Telephone: (213) 609-1333
Telex: 678865
Fax: (213) 609-1021
Chief Executive Officer: G. George Schmid
International Sales Manager: Robert B. Clundt
International Offices: HONG KONG: Jones Wong, Freight Systems, Suite 1623-5 Ocean Centre, Kowloon TEL. 852-3-739-3323; TAIWAN: W.N. Chen, Freight Systems, No. 595 Min Sheng E Road, 10th Fl., Taipei TEL. 886-2-713-4693; KOREA: Mr. Hyun, Shinhan Freight Systems 12 Fl. Jung Woo Bldg., CPO Box 952, Seoul TEL. 82-2-739-4731; JAPAN; THAILAND: Bangkok; SINGAPORE; MALAYSIA; PHILIPPINES; INDONESIA; please contact the Carson Office for further information.

Gunther George Schmid Associates, Inc. is a privately owned company in business for some 4-5 years. It is located in the Los Angeles area minutes from the very busy Ports of Los Angeles and Long Beach and the Intermodal Container Transfer Facility (ICTF) used by the ports for intermodal cargo movements. Schmid Associates is a International Freight Forwarder and also a Non Vessel Operating Common Carrier (NVOCC).

Product/Service	Description
Freight Forwarders	International Freight Forwarder - License No. 2475 issued by the F.M.C. Provides forwarding and documentation services for cargoes destined to all parts of the world. Services are by both ocean and air. Our product is service to the customer. Inbound NVOCC primarily from the Far East. Services include consolidation of cargo in the Far East port for shipment to the U.S. In addition, we offer competitive ocean freight rates utilizing various contracted carriers (conference and non conference). We also handle shipments from Europe and Australia.

International Freight Services, Inc.
1610 Rollins Road
Burlingame, CA 94011

Telephone: (415) 692-1632/1635
Telex: 331444
Fax: (415) 697-4929
Chief Executive Officer: Joseph DiMaio

Product/Service	Description
Freight Forwarders Customhouse Brokers	Air & Ocean Freight; Packing, Crating, Domestic Air Freight; Impart & Export of General Commodities; Ship Charters

---

The Irwin Brown Company
212 Chartres Street
New Orleans, LA 70130

Telephone: (504) 586-0378
Telex: 584287 (BROWNCO NLN)
Fax: (504) 525-8527
Chief Executive Officer: Sandra Brown Burstein
Vice President: Sheldon Bernstein
Export Manager: Virginia West
Traffic Manager: John Hyatt

The Irwin Brown Company, established at New Orleans in 1968, is a woman-owned business with over 51% of the stock held by its president, Sandra Brown Burstein. We qualify as a "socially and economically disadvantaged small business concern", able to meet the set-aside needs of prime and subcontractors for U.S. Government procurement projects. Our reputation with the U.S. Customs Service as well as with the many allied industries in international trade is of the highest standing.

We are a medium sized Customs Broker/International Freight Forwarder, dedicated to giving personalized service and working toward the betterment of the industry and the community. We are members of the National Customs Brokers and Forwarders Association of America, Inc., and the American Importers and Exporters Association. We are very active with our local association, The International Freight Forwarders and Customs Brokers Association of New Orleans, Inc. Our vice president, Sheldon Bernstein, is the current President of the Association.

J. W. Hampton Jr. & Co., Inc.
15 Park Row
Suite 100
New York, NY 10038

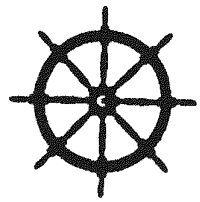
Telephone: (212) 349-5066
Telex: 238677
Fax: (212) 349-2734
Chief Executive Officer: Robert C. Shoule, Jr.
International Sales Manager: Maureen Schoule
Domestic Offices: NEW YORK, NY: 161-15 Rockaway Blvd., Jamaica, NY 11434

Family run business serving the custom house brokerage and foreign freight forwarding community for 124 years.

Product/Service

Freight Forwarders

John S. Connor, Inc.
33 South Gay Street
P. O. Box 1717
Baltimore, MD 21203-1717



Telephone: (301) 332-4880
Telex: 170914 CONNOR UT; 6849034 CONNOR UW; 87565 CONNORBULK BAL
Fax: (301) 332-4925
Chief Executive Officer: Paul F. Connor
International Sales Manager: C. Richard Foster
Domestic Offices: NORFOLK, VA: 322 Monticello Arcade, P. O. Box 3910, Norfolk, VA 23514-3910 TEL. (804) 627-3910 TELEX 160106 JSCONNORNFK, FAX (804) 627-3538
International Offices: ENGLAND: Jonathon S. E. Turner, Heath Paddocks, Press Heath Whitchurch, Shropshire SY13 2AF TEL. 0948-3527, FAX 0948-5949, TELEX 35756 A/B TURNER G; GREECE: Captain Georgio A. Kondoulis, G. A. Kondoulis Shipping Co., Ltd., 150, Kolokotroni Street, 185 36 Piraeus TELEX 211258 ALGK GR; JAPAN: Yutaka Iono, Iono Marine Co., Ltd. 604 Catherine Yoyogi, 22-5, 2-Chome Yoyogi, Shibuya-ku, Tokyo 151 TEL. (03)378-3281, TELEX 232-5363 IONO J, FAX (03) 378-0866; ITALY: Angelo Noli, Paolo Scerni, S.P.A., 10 Piazza Portello, P. O. Box 1857, 16124 Genoa TEL. 3910 2692222 or 2267, FAX 39 102692237

Since 1917, John S. Connor, Inc. has been representing shippers and consignees of International Commerce. During this period, the company has grown to become one of the most versatile and innovative maritime agency businesses on the U. S. East Coast. As Shipper's Agent, the company handles the majority of export coal and bulk movements through Baltimore along with providing similar services at Hampton Roads. Connor's Agency Departments maintain full service marine operations in the general husbanding of vessels both as Owner's or Charterer's Agent at Baltimore and Hampton Roads. As with all Connor operations, our main objective is to protect the principal's interests at all times.

Product/Service	Description
Coal Transport	As Shippers Agent we provide attendant outbound documentation for export cargoes along with coordination of loading to fulfill Shipper's/Master's cargo requirements. John S. Connor provides fully staffed marine departments with extensive experience in the handling of the exacting needs of vessel activities and in-port requirements both as Owner's and Charter's Agent, along with representation as Shipper's Agent.
Freight Forwarders	John S. Connor correlates with the Shipper for timely movement of coal cargo to quay in accord with arrival of vessel to Port, as well as providing full export documentation services and assistance in vessel loading operations.

M.G. Maher & Company, Inc.
442 Canal Street
New Orleans, LA 70130



Telephone: (504) 581-3320
Telex: 584286
Fax: (504) 529-2611
Chief Executive Officer: Paula L. Maher, President
Domestic Offices: HOUSTON, TX: Ralph Benzaquin, 1121 Walker St., Houston, TX 77002 TEL. (713) 224-8101, FAX (713) 224-4101; MOBILE, AL: Lila Davis, One St. Louis Center, Mobile, AL 36602 TEL. (205) 433-8474, FAX (205) 438-3103; SHREVEPORT, LA: Donna Hopkins, 6209 Interstate Dr., Shreveport, LA 71109 TEL. (318) 631-3956, FAX (318) 631-4102; BRENTWOOD, TN: Bobby Thompson, 783 Old Hickory Blvd., Brentwood, TN 38131 TEL. (615) 371-8438, FAX (615) 377-9712; MEMPHIS, TN: Sandra Jennings, 3035 Distributors Row, Memphis, TN 38131 TEL. (901) 345-2878, FAX (901) 345-2980; JACKSON, MS: Keith West, Terminal Bldg., Jackson Int'l Airport, Jackson, MS 39208 TEL. (601) 932-7435, FAX (601) 932-7436

M.G. Maher is one of the largest, full-service international freight forwarders and customs brokers in this part of the world. We know every in-and-out of the technical details, laws, personalities, systems, routines, and quirks associated with shipping. We are fully computerized, which serves us well in what we regard as our most important function: looking out for our clients interests.

Product/Service	Description
Coal Transport	Tracing of inland movement to seaboard, booking of advance and timely cargo space, as well as preparing and executing documents and other paperwork.
Freight Forwarders	

NEDRAC, Inc.
3303 Harbor Blvd.
Ste. E-2
Costa Mesa, CA 92626

NEDRAC inc.

Telephone: (714) 957-1202
Telex: 984068
Fax: (714) 957-1261
Chief Executive Officer: D. Carden
International Sales Manager: J. Tyler

Product/Service	Description
Air and Ocean Forwarding	Ship and aircraft charter broker. Letter of credit negotiation and banking.
International Freight Forwarder	

Radix Group International
5510 West 102nd Street
Los Angeles, CA 90045

Telephone: (213) 338-2400
Telex: 216408
Fax: (213) 417-5031
Chief Executive Officer: Matthew P. Sheppard
International Sales Manager: John Tibshirany, Vice President, Sales and Marketing
Domestic Offices: LOS ANGELES, CA; IRVINE, CA; DALLAS, TX; TULSA, OK; HOUSTON, TX; PHOENIX, AZ; SEATTLE, WA; SAN FRANCISCO, CA; CHICAGO, IL; ATLANTA, GA; COLUMBUS, OH; INDIANAPOLIS, IN; MINNEAPOLIS, MN; NEW YORK CITY, NY; BOSTON, MA; ALBANY, NY; HARTFORD, CT; BALTIMORE, MD; NORFOLK, VA; CHARLOTTE, NC; MIAMI, FL
International Offices: All principal cities world wide. Please contact company headquarters for further details.

Radix Group International is an EDI automated, full service international freight forwarder and customs broker engaged in all aspects of international transportation. Radix became a significant national firm through the merger and integration of a number of old line and prestigious firms. presently, Radix operates twenty-two offices in nineteen cities throughout the U.S. and an extensive agent network worldwide. Staffed by over five hundred professionals, Radix offers the strength and resources of a major corporation while maintaining the high standard of personalized service which are the hallmarks of the regional firm.

Product/Service	Description
Freight Forwarding NVOCC	Expedite and coordinate both air and ocean shipments, from point of origin to final destination. Arrange; consolidations, warehousing, packing, crating, distribution, inland transport, insurance, duty drawback. Prepare all documentation involved including; ocean and air bills of lading, export declarations, packing lists, certificates of origin, consular documents and bank documentation.

W.R. Zanes & Co. of Louisiana, Inc.
223 Tchoupitoulas St.
New Orleans, LA 70130

Telephone: (504) 524-1301
Telex: 58-356
Fax: (504) 524-1309
Chief Executive Officer: William St. John, Jr.
International Sales Manager: David Delatte
Domestic Offices: HOUSTON, TX: 11821 East Freeway, Suite 230, Houston, TX 77029 TEL. (713) 451-6991; MOBILE, AL: Suite 800, 118 North Royal Street, Mobile, AL 36602 TEL. (205) 438-1597

Founded in Dallas, Texas in 1913 by Walter Revere Zanes, W.R. Zanes & Company is engaged in cargo logistic activity in addition to it's service to the International Trade as Customs Brokers and International Freight Forwarders. Expansion to Houston, TX, Galveston, TX., New Orleans, LA., and Mobile, AL., permits Zanes to offer complete U.S. Gulf Coast coverage to it's clientele. Zanes' approach to servicing customers is to consider their operations an extension of their client's staff and to pursue their interests with the same intensity they would if they were undertaking Zanes' functions. Personalized high quality performance is what we guarantee--and deliver.

Product/Service	Description
Freight Forwarders	Zanes provides all the necessary trade documentation and controls to satisfy Government requirements both in the United States and the importing country, to meet contractual obligations for their clients to guarantee proper delivery of cargo, and to secure timely payment for product. As a forwarder, Zanes can establish origin to destination transport and other related costs and secure contracts for performance. We also generally oversee the cargo move tracking as specified by our customer.

Technical Consultants: Firms providing engineering, scientific and other technical services in any area related to coal and coal technologies.

AEP Energy Services, Inc.
1 Riverside Plaza
Columbus, OH 43215

Telephone: (614) 223-1000
Telex: 810 482 1627
Fax: (614) 223-1822/1823
Chief Executive Officer: W. S. White, Jr., Chairman
International Sales Manager: Donald A. Dick, Vice President & Managing Director

AEP Energy Services, Inc. (AEPES) is a wholly owned subsidiary of American Electric Power Company, Inc. (AEP), one of the largest electric utility holding companies in the U.S. For more than eighty years, AEP has planned, engineered, designed and constructed the most highly integrated and interconnected system in the world. Today the AEP System consists of over 23,000 MW of generating capacity, over 2,000 miles of 765 kV transmission line and over 100,000 miles of distribution line to provide reliable power to over 2.6 million customers. AEP is one of the largest users of coal in the U.S. and we mine over 11 million tons of coal annually from our four subsidiary mining divisions. Our expertise in utility operations and mining extends from longwall mining and the largest capacity coal washing plant in the U.S. to advanced research in coal utilization through the construction of a 70 MW, $185 million pressurized fluidized bed combustion (PFBC) demonstration plant scheduled for operation in 1990. AEPES was established to offer the experience and expertise of AEP and its subsidiaries to foreign and domestic organizations, public and private companies, and government agencies.

Product/Service	Description
Architect/Engineering Services	Power plant, T&D, substation, environmental and mining engineering/consulting; advanced coal utilization technology; testing and training.

Alabama Coal Association
Vestavia Commerce Center
2090 Columbiana Road, Suite 2500
Birmingham, AL 35216

Telephone: (205) 822-0384
Fax: (205) 822-2016
Chief Executive Officer: William M. Kelce

The Alabama Coal Association was formed in 1972 by a small number of surface mining companies who recognized the need for a unified voice to cope with the modern-day issues that impact so dramatically on the mining industry. In July, 1984, ACA merged with the Alabama Mining Institute, a 75-year old consortium of underground and surface mining operators. With the merger, ACA represents firms which produce over 93 percent of all coal produced in the State of Alabama. Today, these member companies continue to work together to accomplish those things that a single company could seldom accomplish alone. ACA provides vital services to the mine operators in this State. Whether a company produces one or one million tons the member is represented by his Board of Directors and a staff with enthusiasm, dedication and professionalism. ACA is a prestigious, well-respected association that speaks effectively in your behalf. From governmental bodies to environmental organizations, the Association keeps pace with developments that affect your business.

(Continued on next page)

Alabama Coal Association (Continued)

Product/Service	Description
Consulting	ACA adheres to the following objectives: to develop and maintain productive relationships with governmental bodies and agencies and to insure accurate and timely representations of the industry's views on issues which affect it; to create a better understanding among the people of Alabama of the problems of and need for coal mining in our State; to provide opportunities for educating the Association's membership as to current trends in the industry, including new laws and regulations to which the members are subject. This is accomplished through meetings and seminars as well as publications; and to provide leadership in the industry's efforts to solve problems and create opportunities which result in a healthier, more productive coal mining industry in Alabama. To fully achieve these objectives, the participation of every mine operator and allied companies that service the mining industry in Alabama is essential. The combined cooperation of these two groups guarantees the industry its greatest influence.
Public and Government Relations	

Applied Management Sciences, Inc.
962 Wayne Avenue
Suite 701
Silver Spring, MD 20910



Telephone: (301) 585-8181
Telex: 405708
Fax: (301) 495-8655
Chief Executive Officer: Todd Tucker
International Sales Manager: Patrick M. McCarthy
Domestic Offices: OAKRIDGE, TN; NEWPORT NEWS, VA; CRYSTAL CITY, VA; PORTSMOUTH, NH; SAN DIEGO, CA
International Offices: Please contact company headquarters for further information.

Applied Management Sciences, a private professional services research firm, was established in 1970 on the premise that leaders and managers in government and industry require timely, objective, and thorough information to make better short-term and long-term decisions. Since its founding, Applied Management Sciences has been awarded approximately 600 contracts with an aggregate value in excess of $100 million. Over the years, Applied Management Sciences has applied state-of-the-art methodological techniques to a wide range of analytical management problems. Refinement of our techniques and approaches has enabled us to offer proven, cost-effective solutions to client problems and to make valuable contributions to several fields of specialization. More recently, Applied Management Sciences has begun offering conference support for technical symposia on energy-related specialty subjects. Applied Management Sciences' fields of specialization include market forecasting, marketing studies, market surveys, quality control program designs, price modeling, and management information systems.

Product/Service	Description
Marketing Research Services	Collects market data using surveys, elite interviewing, public document review. Prepares market reports on general or specific subjects related to fuel use and energy. Prepares status reports of technology usage and state-of-the-art. Evaluates technologies' potential in specific markets. Identifies markets for fuels and energy technologies. Prepares market overviews. Analyzes economic benefits of programs designed to influence customer energy usage.
Quality Control	Provides customized sample designs for fuel sampling and product quality control.
Conference Support	Creates and manages conferences, seminars and workshops on specialized energy subjects. Services include calls for papers, invitations, agendas, hotel and travel logistics, meals, audio and visual aids. Provides travel and related logistic services for technical and market exchange visits with other countries. Prepares and publishes formal proceedings. Recent international experience has been with the U.K. and U.S.S.R.
Management Information Systems	Develops specialized PC or mainframe management information systems for tracking project costs, progress, budget, and schedule. Collects and creates associated data bases. Develops information systems in a variety of commonly used software.

Aptech Engineering Services, Inc.
1257 Elko Drive
Sunnydale, CA 94089

APTECH®
ENGINEERING SERVICES, INC.

Telephone: (408) 745-7000
Telex: 33-4959
Fax: (408) 734-0445
Chief Executive Officer: G. R. Egan
International Sales Manager: S. A. Lefton
Domestic Offices: HOUSTON, TX; ALEXANDRIA, VA

Provides consulting engineering, design and operation services to the industrial and utility power industry. We specialize in the failure analysis, maintenance and determination of remaining useful service life of boiler components including heads and tubing, piping, turbines, fans, pumps, valves, air heaters, pulverizers and structural equipment. APTECH has a complete in-house metallurgical laboratory.

Product/Service	Description
Architecture/Engineering	Design of specialized power plant retrofits and upgrades to enhance their useful service life. Assessment and studies of reliability maintenance, capacity and efficiency. Design and assessment of piping systems and pressure vessels.
Boiler Equipment	Design of replacement tubing in superheaters, reheater, waterwall tubing and headers. Assessment of root cause of failure of boiler components, condition assessment, component life assessment and life assessment services.
Turbine Equipment	Assessment of the remaining useful life of turbine components including blades, disks, cases and rotors.

Arthur D. Little, Inc.
Acorn Park
Cambridge, MA 02140

Arthur D Little

Telephone: (617) 864-5770
Telex: 921436/921435
Fax: (617) 661-5830, 661-5831, 661-1622
Chief Executive Officer: C. R. LaMantia
International Sales Manager: H. A. Riker
Domestic Offices: CAMBRIDGE, MA; NEW YORK, NY; SAN FRANCISCO, CA; LOS ANGELES, CA; HOUSTON, TX; WASHINGTON, DC
International Offices: Offices worldwide; please contact company headquarters for further information.

Arthur D. Little, Inc., is an international management and technology consulting firm. Since 1886, Arthur D. Little has helped clients benefit from change by applying science, technology and advanced management concepts, and translating plans into action. Today, with a total staff in excess of 2500, about half of Arthur D. Little's work is in management consulting and half is in applied research in the physical and life sciences and engineering. Since the resurgence of interest in coal in the late 1960s, Arthur D. Little has been active in many aspects of the coal business -- management, mine engineering, acquisitions, coal procurement/contracting, utilization, gasification and advanced combustion research. Arthur D. Little's experience includes both metallurgical and steam coal.

Product/Service	Description
Advanced Utilization	Arthur D. Little is active in evaluating the feasibility of, and making technical recommendations on, emerging clean-coal technologies. Assignments for clients include: atmospheric, circulating, and pressurized fluidized bed combustion; integrated gasification/combined cycle, clean fuels and alternative fuels; emission control equipment.
Coal Industry	For a wide range of clients, Arthur D. Little is active in all phases of coal industry activity. Assignments include property evaluations, productivity improvement, coal preparation, transportation, contract negotiation, market assessment, pricing policy/forecasts, and strategic planning.

Baker/TSA, Inc.
Airport Office Park, Bldg. 3
420 Rouser Road
Coraoplis, PA 15108

Telephone: (412) 269-6000, (800) 553-1153
Fax: (412) 269-6097
Chief Executive Officer: C. J. Touhill, P.E., Ph.D., President
International Sales Manager: J. D. Whiteford
Domestic Offices: JACKSON, MS: 3957 Northview Dr., Jackson, MS 39206 TEL. (601) 987-4406; MERRILLVILLE, IN: 701 East 83rd Ave., Merrillville, IN 46410 TEL. (219) 736-0263, FAX (219) 755-0233; PRINCETON, NJ: Princeton Commerce Center, Building C, 29 Emmons Dr., Princeton, NJ 08540 TEL. (609) 987-6900, FAX (609) 243-0558; WESTBORO, MA: Weston Geophysical Corporation, Lyons Street, P.O. Box 550, Westboro, MA 01581 TEL. (508) 366-9191, FAX (508) 366-9197
International Offices: Please contact company headquarters for further information.

Baker/TSA's staff of over 175 include the disciplines of environmental, chemical, geotechnical, civil, and mechanical engineering; biology, ecology, and toxicology; industrial hygiene; chemistry and geochemistry; geology and hydrology. This highly trained staff works together to provide integrated solutions for addressing clients' needs in a responsive and cost-effective manner. Baker/TSA provides coal industry clients comprehensive water, wastewater, and solid waste management engineering services. Baker/TSA has experience in management of coal cleaning and coal combustion wastes including waste characterization, handling, conditioning, disposal, and utilization as well as experience in treatment of acidic wastewaters and contaminated groundwaters. The Coraopolis, Pennsylvania headquarters office, adjacent to the Greater Pittsburgh International Airport, is the technical and administrative resource base.

Product/Service	Description
Waste Utilization Assessments	Baker/TSA performs utilization assessments to identify potential waste utilization applications. Capability and experience include literature based evaluations of technical and economic feasibility and marketability, waste characterization analyses, laboratory and/or field scale demonstration testing, and local market definition.
Architecture/Engineering Waste Disposal Facility Design	Baker/TSA provides comprehensive civil, geotechnical and environmental engineering services for disposal facility development and design including: site selection studies, surveying, conceptual design, final design plans and specifications, preparation of permit applications, and onsite construction management.
Water/Wastewater Treatment Engineering	Baker/TSA engineers have extensive experience with physical, chemical, and biological treatment processes related to process water pretreatment, process water treatment, leachate and contaminated groundwater treatment, and process water recycle/reuse. Engineering capabilities include conceptual design, treatability and/or pilot plant studies, final system design, preparation of permit applications, and construction management.

Brown and Root, Inc.
4100 Clinton Dr.
Houston, TX 70020-6299

Telephone: (713) 676-3011
Telex: (713) 676-4109
Fax: (713) 676-4191
Chief Executive Officer: T. Louis Austin
International Sales Manager: T. Smith, III
Domestic Offices: MOBILE, AL; LONG BEACH, CA; SAN RAMON, CA; WASHINGTON, DC
International Offices: ENGLAND; MEXICO; VENEZUELA; BRAZIL; AUSTRALIA; THE NETHERLANDS; NORWAY; PHILIPPINES; CHINA; EGYPT; CANADA; INDONESIA; JAPAN; SINGAPORE; MALAYSIA; SAUDI ARABIA; SCOTLAND; BAHRAIN; U.A.E.

Brown & Root and its associated companies form one of the world's largest and most diversified groups of engineering and construction companies. Brown & Root, Inc. was formed in 1914 and has been a wholly-owned subsidiary of the Halliburton Company since 1962. Our growth record is a direct reflection of the reputation we have earned as a leader in the industry, being ranked No. 1 five times and No. 2 five times by Engineering News Record. Our philosophy of work is summarized by the words: Quality, Cost and Schedule. Brown & Root offers a total range of services from preliminary studies, process selection, procurement, construction and operational maintenance and also provides management counseling and guidance in technical, financial, legal and general business matters.

(Continued on next page)

Brown and Root, Inc. (Continued)

Product/Service	Description
Power Plants	Complete range of services required for design and construction of power plants, including coal fired plants, combustion turbines, diesel generators, oil and gas fired plants, nuclear and cogeneration. Engineered and/or constructed in excess of 10,000 MWe of fossil fired plants.
Mining	Complete range of services required for design and construction of mining facilities including solution mining, underground, and surface mining.

Challenge Engineering Consultants, Inc.
101 East Vine, Fifth Floor
Lexington, KY 40507

Challenge
ENGINEERING CONSULTANTS, INC.

Telephone: (606) 233-2215
Fax: (606) 255-9138
Chief Executive Officer: Dean K. Hunt, Esq., P.E.
International Sales Manager: Dean K. Hunt, Esq., P.E.
Domestic Offices: PIKEVILLE, KY: 400 Scott Avenue, Pikeville, KY 41501 TEL. (606) 432-4580, FAX (606) 432-5524

Challenge Engineering Consultants, Inc. was organized in 1984 to provide industry and government clients with a nationally experienced management team and staff. Former managers of several national and local firms including D'Appolonia Consulting Engineering, United States Office of Surface Mining, and Skelly and Loy Engineering Consultants make up the professional staff of Challenge Engineering Consultants, Inc. The Challenge organization provides Engineering and Consultants services to coal, natural resources, waste management industries and government agencies. Challenge's multi-disciplinary staff includes the full range of engineers, geologists, computer scientists, and environmental specialists necessary to address most engineering and natural resources issues.

Product/Service	Description
Mining Engineering	Environmental studies, mine waste disposal, mine design, planning and permitting, mine fires, acid mine drainage and subsidence control.
Computer Consulting	Needs assessment, application generation and training, research for vertical markets.
Geotechnical Engineering	Geotechnical studies for underground mines, reservoir designs and mine waste embankment designs.
Abandoned Mine Land Reclamation	Design and implementation of Abandoned Mine Land (AML) reclamation plans, revegetation assessments and land reconstructions.

Chas. T. Main, Inc.
Prudential Center
Boston, MA 02199



Telephone: 617-262-3200
Telex: 4430035
Fax: 617-859-2575/2576
Chief Executive Officer: J. T. Callahan
International Sales Manager: B. Yamin-Afshar
Domestic Offices: PASADENA, CA: L.J. Pieroni, Ralph M. Parsons, 100 West Walnut Street, Pasadena, CA 91124 TEL. (818) 440-2000
International Offices: Please contact company headquarters for further information.

Chas. T. Main, Inc., is a wholly-owned subsidiary of The Parsons Corporation, Pasadena, California. Headquartered in Boston, MA. Main offers full range architectural, engineering, environmental, air science, and construction management capabilities to industries, utilities, institutions, and government agencies throughout the world.

Product/Service	Description
Architecture/Engineering	Provides complete project services in the following major fields: hydroelectric power generation and water resources development; thermal power generation; power delivery and distribution; energy planning; pulp, paper and forest industries; industrial process and manufacturing facilities; environmental and resource planning.
Technical Services	

Chatterjee and Associates, Inc.
4883 Windemere Drive
Newark, CA 94560

Telephone: (415) 796-5436
Fax: (415) 792-0693
Chief Executive Officer: Anil K. Chatterjee
International Sales Manager: Anil K. Chatterjee
Domestic Offices: FREMONT, CA: 4165 Sedge Street, Freemont, CA 94555 TEL. (415) 475-1168

Chatterjee and Associates, Inc. specializes in technical and economic evaluations of conventional and non-conventional fuel conversion technologies, environmental pollution control system design, process optimization and system analysis. C&AI has experience in working with developing countries via US-AID and United Nations projects.

Product/Service	Description
Clean Coal Process (Beneficiation)	Process design, system optimization, technical and economic evaluations.
Coal-Derived Fuel Conversion Technologies	Coal-derived fuels such as AFBC, Coal-Slurry-Fuel (CSF), Coal Gasification, Liquefaction, handling, combustion, process optimization and economic analyses.
Non-Conventional Fuel	Biomass, solid wastes, peat, lignite conversion technologies and other indigenous fuel energy conversion technology analysis.
Technical Training and Education	Class room teaching and seminar Presentation on Appropriate Fuel Energy Conversion and Conservation.

Coal *Extraction and Utilization* Research Center
Southern Illinois University at Carbondale
Carbondale, IL 62901

Coal *extraction and utilization*
Research Center
SIUC

Telephone: (618) 536-5521
Fax: (618) 453-7346
Chief Executive Officer: John S. Mead
International Sales Manager: David G. Arey
Domestic Offices: CARBONDALE, IL: 315 W. Grand St., Carbondale, IL 62901

The Coal Research Center at Southern Illinois University-Carbondale was established in 1974 to coordinate the coal related research activities of more than 100 faculty and 200 graduate students. Coal research at SIUC has been broad in scope, covering nearly all aspects of coal extraction, preparation, transportation, combustion, pollution control, and reclamation. The Center works closely with the Illinois Department of Energy and Natural Resources' Office of Coal Development and Marketing and its Center for Research on Sulfur in Coal. SIUC operates a unique link-trainer dragline simulator which provides hands-on experience for operators and management personnel. A file of 700 corporations with coal related interests is maintained by the Center.

Product/Service	Description
Dragline Training Program	The Dragline Training Program is a comprehensive and progressive training program designed to increase dragline productivity and reduce operating costs. It provides participants with an efficient and cost effective method of increasing their knowledge about dragline operations and operator skills. Two courses are offered. The supervisor training course is tailored to supervisors, engineers, mine management, experienced dragline crews, and support personnel. The operator training course is primarily for dragline foremen and dragline crew members. Each course simulates the client's specific application of the dragline.
Industrial File	A PC compatible file is maintained by the Center. It lists 700 corporations in the U.S. and overseas which have direct or indirect interest in coal extraction and utilization. A single page profile of coal mining and industries listing relevant executives and interest areas is available. More detailed information can be provided for specific corporations upon request.
Mining & Reclamation Technical Assistance	The Illinois Mining and Minerals Resources Research Institute and the National Mine Land Reclamation Center-Midwest Regional Center are located at SIUC. Technical reports concerning mining and reclamation are published. SIUC's Cooperative Wildlife Research Laboratory is world leader in technical aspects of mine land reclamation by way of wetland habitat creation.
Laboratory/Testing Services	A G/C Mass Spectrometer Laboratory having a Kratos MS-80 high mass, medium resolution mass spectrometer with fast magnet. There are three ionization sources: electron impact, chemical ionization, and fast atom bombardment. A Coal Testing Laboratory having the capability of performing elemental analysis, total sulfur, proximate analysis, ash fusion temperature, and Btu content. A coal grinding facility consisting of various grinders and crushers and a micronizer capable of grinding to micron size. The micronizer has on-line sampling capability which feed into a Leeds Northrop Microtrak particle size analyzer which can measure particle size down to 0.75 um. A thermo-gravimetric analysis capability centered around Perkin-Elmer TGA-7. A combustion capability centered around two instrumented fluidized bed combustors: one capability of 1,000,000 Btu/hr which can operate in either the bubbling or circulating mode and the other with a capability of about 100,000 Btu/hour.

Coal Industry Consultants, Inc.
475 Alexis R Shuman Blvd, P.O. Box 3090
Naperville, IL 60566-7090

CINCO
COAL INDUSTRY CONSULTANTS

Telephone: (312) 420-8830
Fax: (312) 420-8894
Chief Executive Officer: Donald L. Schaible, P.E.
International Sales Manager: Donald L. Schaible, P.E.

Established in 1985, CINCO provides highly specialized consulting services in all phases of coal exploration, mining, preparation, utilization, and marketing, including fuel supply contract analysis, property appraisals, flowsheet design, supervision of exploration programs, feasibility and reserve studies, mine design and operation analysis. Individually throughout their careers, CINCO's principals have executed assignments in, and are familiar with, most of the world's coal producing nations. Client mix includes mining companies, electric utilities, industrial firms, steel companies, railroads, government agencies, banks, insurance companies, attorneys, developers, landowners, and investors. Total employees 7; 4 professional staff.

Product/Service	Description
Consulting Services	Determination of the maximum economically recoverable reserves of a particular deposit and the optimum rate of production.
	Estimation of the optimum quality and yield of coal that can be produced from a deposit with consideration of levels of beneficiation.
	Suitability of the application of a given coal to a process in terms of utilization equipment.
	Develop mine plans including extraction sequence, equipment lists, and capital and operating costs.

Coal Quality Development Center
A Division of Electric Power Research Institute
P. O. Box 98
Homer City, PA 15748

CQDC

Telephone: (412) 479-3503
Fax: (412) 479-4181
Chief Executive Officer: Clark Harrison
International Sales Manager: James Parkinson

The Coal Quality Development Center (CQDC) is owned by the Electric Power Research Institute. Its engineering and technical staff has unparalleled experience with coal cleaning equipment and processes, including advanced coal cleaning methods. CQDC's 25-tph plant is the only commercial-scale coal cleaning test facility in the world. CQDC engineers have comprehensively characterized coals of all ranks, established a coal quality database, demonstrated and tested various cleaning problems at power plants, developed a computer program to test sampler bias, and implemented successful technology transfer programs through videotapes and printed materials. Customers include the U.S. Department of Energy, utilities from across the U.S., state agencies and research institutions.

Product/Service	Description
Contract Research	Develop and test innovative processes and hardware for cleaning, sampling, weighing and analyzing coal.
Equipment Demonstration	Test new coal cleaning, weighing and sampling systems from pilot to commercial scale using state-of-the-art test equipment and analytical procedures.
Plant Testing	Test processes, systems and components in commercial coal cleaning plants and power stations.
Product Commercialization	Commercialize new products, processes and research through proven technology transfer methods.

Coal Technology Corporation
103 Thomas Road
Bristol, VA 24201

Telephone: (703) 669-6515
Fax: (703) 669-2161
Chief Executive Officer: Richard A. Wolfe, Ph.D., President

Coal Technology Corporation had its origin in 1979 as the research and development division of United Coal Company under the leadership of Dr. Wolfe. This division which became UCC Research Corporation, was purchased by Dr. Wolfe from United Coal Company in June, 1989 and at that time became Coal Technology Corporation. CTC offers a skilled staff to companies seeking to wash coal more efficiently, to recover coal fines, to dewater coal fines, to develop new uses for coal or to improve operating methods. CTC is an entirely independent company. All work is handled to fully protect client's proprietary rights.

Product/Service	Description
Contract Research	CTC has successfully completed many research contracts for the U.S. Department of Energy, subcontracts with DOE contractors, utilities and other companies on coal related projects.
Technical Consulting	CTC has experts available for consultation on fine coal recovery, coal drying, coal gasification, coal/water mixtures, coal derived transportation fuels, coal briquetting and novel concepts involving coal.

Conco Systems, Inc.
135 Sylvan Street
Verona, PA 15147

CONCO

ESTABLISHED
1923

Telephone: (800) 345-3476
Telex: 866255
Fax: (412) 826-8255
Chief Executive Officer: George E. Saxon, Sr.
International Sales Manager: George Saxon, Jr.
Domestic Offices: KANSAS CITY, KS; WESTLAKE VILLAGE, CA; FORT LAUDERDALE, FL

Fully integrated firm providing absolutely the best services for proper maintenance and operation of condensers, heat exchangers, and service water systems.

Product/Service	Description
Tube Cleaning Equipment	Exclusive manufacturer of water powered tube cleaning tools for condensers and heat exchangers.
Tube Cleaning Services	Services utilizing exclusive tools.
NDT-Eddy Current Testing	Condition assessment of major cooling components.
Consulting	Preliminary opinion, root cause analysis, water treatment audits.
Failure Analysis	By nuevo laboratory techniques.
Process Modeling	Model cooling systems.

Consolidation Coal Company
Consol Plaza
1800 Washington Road
Pittsburgh, PA 15241

Telephone: (412) 831-4382
Telex: 247-634
Fax: (412) 831-4571
Chief Executive Officer: B. R. Brown
International Sales Manager: Walter E. Schrage
Domestic Offices: NORFOLK, VA: 201 Granby Mall, Suite 216, Norfolk, VA 23510 TEL. (804) 627-6261, FAX (804) 625-5088, TELEX 240403 CONSOL NORF; BALTIMORE, MD: Consolidation Coal Sales Company Terminal, 3800 Newgate Avenue, Baltimore, MD 21224 TEL. (301) 631-7000, FAX (301) 631-7022
International Offices: BELGIUM: Godefroid Coal Trading and Shipping S.A., 37-41 Rue du Congress, Brussels 1000 TEL. 011-32-2-218-7220, FAX 32-2-218-6192, TELEX 846-21434

Consolidation Coal Company (Consol) operates 25 underground and surface mines in nine states and Alberta, Canada. The company is the second-largest coal producer in the United States and holds 6.1 billion tons in steam and metallurgical-grade coal reserves. More than 80 percent of Consol's annual production of more than 55 million tons is steam coal for electricity generation. Nearly 11 million tons of high-grade metallurgical coal is produced annually. Consol mines are linked to major rail routes or the inland waterway for shipment to domestic customers and to exporting points on both coasts and the Gulf of Mexico.

Product/Service	Description
Steam Coal	Consol has exported steam coal since the early 1900s. Today consol exports steam coal to eight countries from mines in northern West Virginia, southwestern Pennsylvania and eastern Kentucky. Exporting points are Consolidation Coal Sales Company's (CCSC) terminal in the Port of Baltimore or terminals in Hampton Roads, Virginia and New Orleans, Louisiana.
Metallurgical Coal	Consol exports high-quality metallurgical coals from mines in southwestern Pennsylvania, West Virginia and Virginia. Low and mid-vol coals from southern Appalachian reserves are rail-shipped to Norfolk, Virginia for export, and mid- to high-vol coal through Newport News, Virginia. Pittsburgh Seam high-vol is shipped through CCSC's Baltimore terminal via New Orleans.
Coal Research	Consol maintains the U. S. coal industry's largest and most complete coal research organization and facilities. Located near Pittsburgh, Pennsylvania, Consol Research & Development works to improve coal mining, processing and combustion technologies. Consol R&D's 1.5 million BTU/hr. pilot combustor, the only one of its kind in the world, can simulate a wide range of boiler configurations to help customers make optimum fuel choices.
Transportation	Consol maintains a transportation and distribution group which coordinates coal shipments and quality control. Consol also provides complete terminaling services through CCSC's Baltimore terminal or through contractual arrangements with other exporting facilities. CCSC's terminal is serviced by two major U. S. rail carriers and has on-site ground storage of 12 million tons, which allows extensive coal blending capabilities and eliminates demurrage charges.

Dames & Moore
911 Wilshire Boulevard, Suite 700
Los Angeles, CA 90017



Telephone: (213) 683-1560
Telex: 315528
Fax: (213) 628-0015
Chief Executive Officer: George D. Leal
International Sales Manager: Howard A. Schirmer
Domestic Offices: CINCINNATI, OH: Derek J. Steele, 644 Linn Street, Suite 501, Cincinnati, OH 45203 TEL. (513) 651-3440; WASHINGTON, DC: Josef J. Udwari, 7101 Wisconsin Avenue, Suite 700, Bethesda, MD 20814 TEL. (301) 652-2215
International Offices: AUSTRALIA: Peter G. Rowley, 84 Alexander Street, Crows Nest, New South Wales 2065 TEL. 61 24394166, TELEX (790) 121378; CHILE: Jaime Illanes, Av. Il De Septiembre 1860, Of. 45, Santiago TEL. (562) 2517174, TELEX (392) 440002; ENGLAND: Richard L. Beake, 1st Floor, Booth House, 15-17 Church Street, Twickenham TW1 3NJ TEL. (44) 1-891-6161, TELEX (851) 929861; HONG KONG: John L. Endicott, 1709-1711 Asian House, 1 Hennessy Road TEL. (852) 5-286202, TELEX 852 5 861 2317; INDONESIA: Paul Reed, P.T. Environment Nusa Geotechnica, J.L. Tebet Barat Dalam 16, Tebet, Jakarta 12810 TEL. (62) 21-829-3512, TELEX (796) 48498; PHILIPPINES: Geoffrey Waite, 9th Floor, The Athenaeum Building, 160 Alfaro Street, Salcedo Village, Makati, Metro Manila TEL. (632) 818-4428, TELEX 22610

Dames & Moore is a worldwide professional firm providing consultation in planning, engineering, the earth and environmental services, waste management, design and regulatory assistance; privately owned and operated; founded in 1938; 2,121 personnel 51 U.S. offices and 24 offices in Australia, Europe, Middle East, Far East, and South America. Since founding, the firm has served 18,700 clients and completed more than 74,000 projects in engineering (geotechnical, foundation, civil, earthquake, environmental, structural, process, chemical, mining, systems, transportation), earth sciences, environmental sciences, and waste management.

Product/Service	Designation	Description
Coal Property Evaluation	CG1	Evaluation of coal properties, design of prospecting and exploration programs for coal, interpretation of results and preparation of maps, coal reserve estimation.
Mining Feasibility Studies	CM1	Analysis of geologic and mining data, preparation of mining pre-feasibility and feasibility studies to assess technical and economic mining potential.
Mine Design	CM2	Design of open-pit, mountain top removal, contour strip and auger surface mines; design of underground mines accessed by slopes, shafts, or through the outcrop; design of mining layouts using room-and-pillar and longwall extraction.
Specialist Mining Studies	CM3	Provision of specialized mining services related to mining layouts in difficult geologic conditions, strata control and support, ventilation, methane drainage, spontaneous combustion, and surface subsidence.
Coal Procurement	CP1	Appraisal of coal quantity and quality in the ground to meet specific customer requirements.
Expert Mining Services	MS1	Provision of expert opinion in coal mining situations and litigation support.
Coal Ash Management	CAM	Analysis and evaluation of environmental and engineering aspects pertaining to utilization and management of coal combustion byproducts, including fly ash, bottom ash, slag, and scrubber sludges.

Dorgan Associates, Inc.
5610 Medical Circle, Suite 31
Madison, WI 53719-1227

DORGAN ASSOCIATES, INC.
CONSULTING ENGINEERS AND SCIENTISTS

Telephone: (608) 273-0044
Fax: (603) 273-0614
Chief Executive Officer: Charles E. Dorgan, P.E., Ph.D.
International Sales Manager: Eric T. Truelove, P.E.

Dorgan Associates is a consulting engineering firm specializing in energy use, storage, and production technologies. Past and present customers include the Electric Power Research Institute (EPRI), major utilities throughout the United States, government agencies, engineering firms, and manufacturers.

Product/Service	Description
Advanced Utilization	Perform studies and evaluations for HVAC, thermal storage, cogeneration, heat pump, and industrial process heat applications.
Facility Construction	Provide engineering consultation for energy use, storage, and production technologies.
Facility Operation	
Architecture/Engineering	

East-West Center
Energy Program
1777 East-West Road
Honolulu, HI 96848

East-West Center

Telephone: (808) 944-7555
Telex: 230-989171
Fax: (808) 944-7970
Chief Executive Officer: Fereidun Fesharaki, Energy Program Leader
International Sales Manager: John C. Kulp, Coordinator of Asian-Pacific Coal Projects

The East-West Center brings together people from U.S., Asia, and the Pacific to study and seek solutions to problems of social, economic, and cultural change. The Center conducts programs of applied research in which people of divergent cultural, political, and professorial backgrounds work collaboratively on the region's critical issues. Located in Honolulu, Hawaii adjacent to the University of Hawaii at Manoa, the Center's interests extend from Iran eastward through Asia to Japan, and from Australia across the Pacific to the United States. Established in 1960 by U.S. Congress, the East-West Center is an educational, non-profit public institution with an international Board of Governors.

Product/Service	Description
Coal Research	Research on thermal coal supply, demand, and transport in the Asia-Pacific region, process of fuel substitution and foreign exchange requirements of Asia-Pacific nations. The scope of research includes country studies of thermal coal supply and demand, regional supply and demand balance analysis, and computer modelling of international trade patterns.
Electricity Research	Research provides techno-economic analysis of electric power industry, with emphasis on fuel substitution, energy trade patterns, and domestic resource development in Asia and Pacific countries.

Ellison Consultants
4966 Tall Oaks Drive
Monrovia, MD 21770

Telephone: (301) 865-5302
Fax: (301) 831-5443
Chief Executive Officer: William Ellison
International Sales Manager: Gerd A. Ellison

The firm comprises technical development and engineering design specialists serving as independent consultants since 1981. The company is internationally recognized for its worldwide, coal-related, consulting work assignments and publications and oral communications experience for technology transfer to and from U.S.A. in the field of coal energy development and environmental pollution control.

Product/Service	Description
Stack Emission Control	The firm serves as a consultant to provide expertise in project planning and design activity for evaluation and utilization of available and emerging technologies for control of particulate, SO_2 and NOx emissions in firing of bituminous coal of high or alternative low sulfur content.
Management of Collected Waste	The firm offers specialized consulting service in coal-fueled project planning and design of management and marketing of solid and liquid waste byproducts generated by diverse means of control of environmental pollution.

Energotechnology Corporation
497 Massachusetts Avenue
Cambridge, MA 02139

Telephone: (617) 492-3700
Fax: (617) 492-3705
Chief Executive Officer: E. Stephen Miliaras, Managing Director
International Sales Manager: Damon W. Lawrence, Marketing Director

Energotechnology Corporation was founded in 1975 to provide consulting services in energy and power generation for industry, utilities, business and governmental agencies and to conduct research and development in energy, power generation, pollution abatement, regulatory affairs, and related areas of technology. Energotechnology's engineering staff includes senior men in the mechanical, electrical, civil/structural and chemical/environmental fields who are experienced in power plant design and in related work. Our proximity and contacts with the well-known nearby universities offer us and our clients the opportunity to utilize as consultants various experts in their respective fields should the need arise.

Product/Service	Description
Advanced Utilization	Energotechnology has developed an innovative and low cost clean coal combustion technology for power generation which combines simple coal cleaning and power cycle modifications and is retrofitable to existing older coal-fired power plants and can result in uprating while reducing emissions. The proprietary technology can also reduce the cost of new power plants.
Technical Consulting	Energotechnology has also developed innovative and low cost power generation concepts from the combustion of refuse, the conversion of oil/gas designed boilers to coal-fired, and a coal-fired power plant with low cost, built-in peaking capability.

Energy and Environmental Research Corporation
18 Mason
Irvine, CA 92718

Energy and Environmental Research Corporation

Telephone: (714) 859-8851
Telex: 181787
Fax: (714) 859-3194
Chief Executive Officer: Thomas J. Tyson
International Sales Manager: Michael P. Heap, President
Domestic Offices: ORRVILLE, OH: 1645 N. Main, Orrville, OH 44667 TEL. (216) 682-4007, FAX (216) 684-2110; DURHAM, NC: 3622 Lyckan Parkway, Durham, NC 27707 TEL. (919) 489-1726, FAX (919) 493-5670; WHITEHOUSE, NJ: P.O. Box 189, Whitehouse, NJ 0888 TEL. (201) 589-1726, FAX (201) 534-9018
International Offices: Please contact company headquarters for further information.

EER specializes in combustion and air pollution control for coal. This includes the development and application of advanced combustion systems and emission control equipment. EER also specializes in the tuning and optimization of combustion equipment. This includes burner balancing, sootblower optimization and other techniques to produce optimum thermal performance and minimum emissions. EER has experience with all fossil fuels including coal, oil and gas. EER also has experience in the incineration of waste materials including hazardous waste, municipal solid waste and medical waste. Annual sales are approximately $9,000,000. Employees number about 100, mostly engineers with advanced degrees.

Product/Service	Description
Coal Quality Evaluation	Comparative evaluations of alternate coals including analysis and test burns.
Emissions Compliance	Evaluations of alternate strategies for meeting NOx, SO_2 and particulate emission regulations at minimum total cost.
Performance Optiminization	Tuning coal combustion systems for maximum efficiency, minimum emissions and minimum total cost.
SO_2 Control Systems	Several SO_2 control processes including in furnace and duct sorbent injection systems.
NOx Control Systems	Several NOx control processes including reburning, ammonia injection, flue gas recirculation, low NOx burners and several new technologies under development.

The ERM Group
855 Springdale Drive
Exton, PA 19341

The ERM Group

Telephone: (800) 544-3117
Telex: 4900009249
Fax: (215) 524-7335
Chief Executive Officer: Paul H. Woodruff, P.E.
International Sales Manager: Kenneth T. Fillman
Domestic Offices: BOSTON, MA: ERM-New England, Inc., 205 Portland Street, Boston MA 02114 TEL. (617) 742-8288; SEATTLE, WA: ERM-Northwest, Inc., 2821 Northrup Way, Bellevue, WA 98004 TEL. (206) 827-9440; DENVER, CO: ERM-Rocky Mountain, Inc., 5950 South Willow Drive, Suite 310, Englewood, CO 80111 TEL. (303) 741-5050; COLUMBUS, OH: ERM-Midwest, Inc., 450 W. Wilson Bridge Road, Columbus, OH 43085 TEL. (614) 433-7900; CHICAGO, IL: ERM-North Central, Inc., 102 Wilmot Road, Suite 300, Deerfield, IL 60015 TEL. (312) 940-7200; LONG ISLAND, NY: ERM-Northeast, 88 Sunnyside Blvd., Suite 104, Plainview, NY 11803 TEL. (516) 349-0050; TAMPA, FL: ERM-South, Inc., 9501 Princess Palm Avenue, Suite 100, Tampa, FL 33619 TEL. (813) 622-8727; NASHVILLE, TN: ERM-Southeast, Inc., 215 Centerview Drive, Suite 110, Brentwood, TN 37024-0881 TEL. (615) 373-3350; HOUSTON, TX: ERM-Southwest, Inc., 16000 Memorial Drive, Suite 200, Houston, TX 77079 TEL. (713) 496-9600; SAN FRANCISCO, CA: ERM-West, Inc., 1777 Botelho Drive, Suite 260, Walnut Creek, CA 94596 TEL. (415) 946-0455
International Offices: WEST GERMANY: Environmental Resources Management, Inc., Frankfurter Strasse 33-35, Postfach: 5427, D-6236 Frankfurt-Eschborn TEL. 6196-703 413; CANADA: ERM-Canada, Inc., Suite 304 Suntower, 100 West Pender Street, Vancouver, British Columbia, V6B 1R8 TEL. (604) 684-4434; ENGLAND: Environmental Resources LTD., 106 Gloucester Place, London W1H3DB TEL. (011-44-1) 486-1211; HONG KONG: ERL (Asia) Limited, Suite 1811, Star House, 3 Salisbury Road, Kowloon TEL. (011-85-2) 372-35983; ITALY: Produzione Ambiente, Risorse, P.A.R.s.r.l., Corso Di Porta Nuova, 15, 20121-Milano, (I) TEL. (011-39-2) 655-5823

The ERM Group is an affiliation of 27 multidisciplinary environmental consulting and construction management firms and analytical laboratories with over 50 offices located worldwide. Founded in 1977, the ERM Group has 1,000 employees helping clients solve complex environmental problems. The ERM Group is a technically oriented consulting organization with an experienced staff, supported by a state-of-the-art environmental analytical

(Continued on next page)

The ERM Group (Continued)

laboratory. Our professionals have in-depth experience in these areas: site remediation; hydrogeology; hazardous/solid waste management; management consulting; engineering services; underground tank management; environmental science; air pollution control; computer services; construction; and health, safety and toxicology.

Product/Service	Description
Permitting and Siting	Finding optimum locations for facilities, preparing necessary permits, and negotiating permit specifications with agencies.
Emissions Controls	Estimating and sampling emissions, modeling pollutant transport and dispersion, determining real risk to receptor, designing emissions control strategies and systems to protect receptors and comply with regulations.
Environmental Planning	Preparing environmental management strategies for all aspects of operations.
Waste Handling	Designing systems to collect and developing plans to landfill coal ash.

Fieldston Company, Inc.
1920 N Street, NW
Suite 210
Washington, DC 20036

Fieldston

Telephone: (202) 775-0240
Fax: (202) 467-0768
Chief Executive Officer: James N. Heller

Fieldston Company, Inc. is a coal market and coal transportation consulting and publishing firm. The company publishes a bi-annual coal transportation reference guide, *The Fieldston Coal Transportation Manual*, as well as the semi-monthly newsletter, *Coal Transportation Report*. Fieldston's primary areas of consulting expertise involve analyzing coal markets, coal transportation rates and coal transportation logistics.

Product/Service	Description
The Coal Transportation Manual	The Manual is a reference volume dedicated exclusively to coal transportation from the mine mouth to the end user. The publication contains data and analysis on most modes of coal transportation including railroads, river barges and ocean vessels. The Manual contains extensive information on coal transportation facilities along the inland waterways, coal-hauling railroads, export rail and barge rates, ocean freight rates, Great Lakes coal terminals and ocean shipping ports. Additional information is provided for electric utility power plant coal handling and receiving capabilities.
The Coal Transportation Report	A semi-monthly newsletter addressing issues pertinent to the coal and coal transportation industries. Areas of coverage include transportation regulation, innovations in coal transportation technologies and general coal industry issues having an impact on the nation's coal transportation infrastructure.
Coal Transportation Rate Logistics Analysis	Fieldston provides analysis and development of coal transportation rates and logistics for coal shippers, producers and brokers. Transportation rate and logistical analyses can be conducted for coal movements by all modes. These analyses can be combined with plant or port siting studies, geographic coal market evaluations or detailed logistical studies to identify the most economic method to move coal from point to point.
Coal Market Analysis	Fieldston provides detailed analyses of specific coal markets, defined geographically or by end use. These analyses include compiling information on coal prices, quality and transportation.
Coal/Transportation Contract Analysis	Fieldston provides analyses to parties negotiating coal and transportation contracts. Specific areas that are studied include initial prices or rates, contract terms, including volume, quality of service, duration and contract escalation provisions.
Transportation Equipment Evaluations	Fieldston supplies analyses of the economics of investing in transportation equipment, using financial and economic models. Among the specific services that can be provided are evaluating the economics of purchasing aluminum or steel hopper cars, private car lease and railcar maintenance agreements.

Fluor Daniel
3333 Michelson Drive
Irvine, CA 92730



Telephone: (714) 975-2000
Telex: 68-1441
Fax: (714) 975-5981/ 5963
Chief Executive Officer: Vincent L. Kontny
International Sales Manager: Charles P. Pringle
Domestic Offices: CHICAGO, IL: TEL. (312) 368-3500; GREENVILLE, SC: TEL. (803) 298-2500; HOUSTON, TX TEL. (713) 263-1000; PHILADELPHIA, PA: TEL. (609) 985-1101; RICHMOND, VA: A. T. Massey Coal Company, Inc. TEL. (804) 788-1800
International Offices: SAUDIA ARABIA: Fluor Arabia, Dhahran TEL. (966) 3-857-8577; AUSTRALIA: Fluor Daniel Australia, Melbourne TEL. (61) 03-520-4444; CANADA: Fluor Daniel Canada, Calgary TEL. (010) 403-259-1110; THE NETHERLANDS: Fluor Daniel BV Netherlands, Haarlem TEL. (31) 23-33-51-500; WEST GERMANY: Fluor Daniel GmbH, Dusseldorf TEL. (49) 211-4551-1; ENGLAND: Fluor Daniel, Ltd., London TEL. 44-1-222-7717

Fluor Daniel, with over $12 billion in backlog, is organized to provide a broad range of services to clients in five business sectors: Industrial, Process, Power, Hydrocarbon and Government. Services include feasibility studies, conceptual design, project management, engineering, construction, procurement, technical services, project financing, maintenance and plant operations. Fluor Daniel provides global capability from over 50 offices located around the world. Our affiliate, A. T. Massey Coal Company, produces both high-quality, low-sulfur steam coal and metallurgical coal and ranks among the 10 largest coal companies in the United States. In addition to sales of produced coal, Massey also markets coal for independent producers.

Product/Service	Description
Architectural/Engineering	Fluor Daniel, who is currently rated #1 among the top 400 U.S. Construction Companies by Engineering News Record, provides a complete range of engineering services utilizing 2D and 3D plant design systems. These services include a Project Management capability which is supported by a wide range of engineering project control systems.
Facility Constructability/ Maintainability	Constructability/Maintainability is the infusion of Fluor Daniel experience with engineering technology to provide good designs balanced against project cost and schedule goals. Fluor Daniel is the U.S. leader in on-the-job safety in major construction and maintenance projects--where work is performed at an average of 1200 sites per year.
Financing	Fluor Daniel is exposed to a broad range of financing structures that can be tailored to suit a client's requirements. Assistance is then provided in securing the necessary financial commitments.

GAI Consultants
570 Beatty Road
Monroeville, PA 15146



Telephone: (412) 856-6400
Fax: (412) 856-4970
Chief Executive Officer: Anthony M. DiGioia, Jr.
International Sales Manager: Anthony M. DiGioia, Jr.
Domestic Offices: CHARLESTON, WV: 4715-C MacCorkle Avenue SE, Charleston, WV 25304 TEL. (304) 925-7730; RALEIGH, NC: 401 Glenwood Avenue, Raleigh, NC 27603 TEL. (919) 828-0801; ORLANDO, FL: 1833 Edgewater Drive, Orlando, FL 32804 TEL. (407) 423-8398
International Offices: Please contact Monroeville office for further information.

GAI Consultants has been providing engineering services to the mining industry since 1958. GAI's staff of specialists includes mining and civil engineers, geologists, hydrogeologists, archaeologists, and agronomists. This multidisciplinary team of engineers, scientists, planners, and environmental specialists assists mining companies in projects ranging from exploration, siting and permitting through mine planning and engineering to treatment of coal combustion waste. GAI's scope of work may range from short-term consultation to total project design. Geographically, GAI is well positioned for the coal mining industry. Our offices are located in Monroeville, Pennsylvania; Charleston, West Virginia; Raleigh, North Carolina; and Orlando, Florida.

Product/Service	Description
Mine Planning and Design	GAI provides full design and planning services for new or expanding mines including drilling, geophysical testing, feasibility studies, mine layouts, and selection of mining methods and mine access. GAI also provides assistance in planning and siting auxiliary mine facilities as well as beneficiation and coal gasification facilities.

(Continued on next page)

GAI Consultants (Continued)

Waste Disposal and Land Reclamation	Waste disposal and land reclamation services at GAI range from overall engineering design and materials handling procedures to environmental studies and ground water investigations. GAI provides services for dry refuse disposal areas as well as slurry impoundments; treatment of acid mine drainage; design of waste disposal dams and ponds; and regrading, revegetation, and reclamation planning.
Environmental and Subsidence Engineering	Environmental services provided by GAI include pollution abatement, reclamation planning, environmental impact statements, waste disposal and permitting studies, ground water monitoring, and acid mine drainage studies. Subsidence-related services include subsidence plans, mine and surface stabilization, prediction of subsidence and ground movement, subsidence investigation and control plans, and design of subsidence-resistant structures.

General Physics Corporation
6700 Alexander Bell Drive
Columbia, MD 21046

GENERAL PHYSICS CORPORATION

Telephone: (301) 290-2300
Telex: (TWX): 7108622878
Fax: (301) 290-2600
Chief Executive Officer: William E. Kuhlmann
International Sales Manager: Herman P. Stone II
Domestic Offices: LOCKPORT, NY: 111 Main Street, Lockport, NY 14094
International Offices: SINGAPORE: Robert Young, 80 Marine Parade Road #11-01, Parkway Parade, 1544 TEL. 343633, FAX 65-3457938; CANADA: Justin Callahan, POB 202, 9915 108th Street, Edmonton, Alberta T5K 2G8 TEL. (403) 466-6145, (403) 468-5611

General Physics Corporation is a mature and established company that provides diverse technical services to industries and government. General Physics employs over 1800 people and had over $121 million in annual sales in 1988. We are a high-technology company organized to respond to individual client needs. General Physics has a well qualified staff of former power plant supervisors, managers and operators. They understand the problems and concerns of the coal industry. We have developed a methodology that has been proven effective in solving plant problems. The key to our performance has been enthusiasm, imagination and performance.

Product/Service	Description
Operations Support Services	The services in operations support include: audits of coal sampling equipment and sample preparation, combustion technology improvement programs, coal handling system descriptions, coal handling operating procedures, alarm/abnormal response procedures, start up procedures and support, coal handler qualification programs, operations audit, human factors assessments, thermal performance monitors.
Training Services	We are also involved in all aspects of training plant personnel with particular emphasis on developing training programs based upon specific client needs. These include: training program needs analysis, coal handler training program design and development, development of classroom, self-taught laboratory, in-plant, simulator and on-the-job training programs for coal handling systems, preparing training materials, conducting training programs, developing operations and maintenance qualification and requalification programs, administration materials, coal handling systems training, advanced operator training (combustion efficiency), simulator training.
Engineering Services	We pride ourselves in providing engineering services which are technically sound and utilize good human factors engineering principles. General Physics would be pleased to offer the following engineering services in support of your facility: operations engineering, human factors engineering, startup and testing, preparation of training program administrative materials.
Maintenance Services	General Physics has been involved in providing maintenance services since 1971. These maintenance support and maintenance training services include: preventive/corrective maintenance procedures-coal unloaders, stacker reclaimers, crushers, conveyor belts, coal silos, feeders, other equipment; mechanical maintenance training of coal equipment; electrical maintenance training of coal equipment; instrument maintenance training of coal equipment. Technical repair specifications, maintenance planning support, outage management and support, diagnostic testing and inspection, preventive maintenance programs, reliability centered maintenance programs, maintenance audits, preventive maintenance procedures, inspection and repair procedures, spare parts program.

GeoResearch, Inc.
2815 Montana Avenue
Billings, MT 59101

GRI GeoResearch, Inc.

Telephone: (406) 248-6771
Fax: (406) 248-6770
Chief Executive Officer: Douglas Richardson, Ph.D.
International Sales Manager: Douglas Richardson, Ph.D.
International Offices: Please contact company headquarters for further information.

GeoResearch, Inc., provides comprehensive environmental consulting services to coal mining, coal processing, and coal burning industries. GeoResearch is an experienced multidisciplinary firm, with staff including expert hydrogeologists, meteorologists, air quality specialists, analytical chemists, environmental engineers, and computer programmers. GeoResearch has extensive experience in issues pertaining to acid rain. GeoResearch is currently conducting a two year study in conjunction with the Government of Italy to assess the occurrence and potential for acid rain there. GeoResearch also offers Global Positioning Satellite (GPS) survey services integrated with computer based Geographic Information Systems (GIS) to produce surveys, maps, and to effectively manage geographic data of all types.

Product/Service	Description
Air Quality Services	Monitoring system design and computer dispersion modeling of all relevant parameters including: meteorology, SO_2, NO_x, O_3, H_2S, odor, total and respirable particulates, etc. Acid rain studies. Source apportionment.
Water/Ground Water Services	Hydrogeologic analysis, aquifer testing, ground water monitoring, water supply, mine dewatering, mine drainage, water quality, hydrochemistry, flow measurements, aquifer remediation.
Computer Mapping Services	State-of-the-art computer based survey and mapping capabilities utilizing Global Positioning Satellite technology integrated with ARC/INFO GIS software. Positional and topographic tolerances to $\pm$ 2 cm.

Gilbert/Commonwealth, Inc.
P.O. Box 1498
Reading, PA 19603-1498

Gilbert/Commonwealth, Inc.
Engineers and Consultants

Telephone: (215) 775-2600
Telex: 836-431
Fax: (215) 775-2670
Chief Executive Officer: Charles D. Williams
International Sales Manager: Peter A. Hegedus
International Offices: ZIMBABWE: Peter Cochrane, Gilbert Ltd., 3rd Floor, Zambia House, Corner Julius Nyerere & Union Ave., Harare TEL. 263-4 791108, TELEX 6125 BICON ZW; ENGLAND: Keith Millard Gilbert Associates Ltd., Fraser House, London Road, Twickenham, Middlesex, TWI-3ST TEL. 44 1891-4383, TELEX 266-951 GILBT G; ENGLAND: R. Bruce Wilson, Halcrow Gilbert Associates, Ltd., Burderop Park, Swindon, Wiltshire SN4 0QD TEL. 44 79 381-2479, TELEX 44844 HALWIL G; AUSTRALIA: Geoff W. Spencer, Gilbert-CMPS Engineers, 685 Burke Road, Camberwell, Victoria 3124 TEL. 61-3 811-8800, TELEX AA31268 CMPSM; EGYPT: John M. Coffen, Gilbert Associates SAE, 12 Sebaweeh el Masri Street, Nasr City, Cairo TEL. 20 2 601-123, TELEX 21157 GAMEL; SAUDIA ARABIA: Gilbert-ACES, c/o Arabian Consulting Engineering Services (ACES), P.O. Box 146, Riyadh TEL. 966 1 464-3528 TELEX 400763 ACES SJ

Gilbert/Commonwealth (G/C) provides consulting engineering and allied capabilities to a wide variety of industrial, utility, and governmental clients around the world. Our extensive experience with fossil fuels and fossil fueled power plants encompasses the full range of consulting engineering services, including feasibility studies, engineering analyses, trade-off studies, independent engineers reports, conceptual and final design, cost estimates, planning and scheduling, specifications, quality assurance, construction management, and startup and test. Gilbert/Commonwealth's commitment to and experience with advanced energy technologies is well known, with many assignments for industry and government agencies, including the design and operation of the High Sulphur Center for the Electric Power Research Institute. Further, G/C's engineering and applications experience with acid rain and greenhouse effect problems has put the company at the leading edge of research on these important issues. Gilbert/Commonwealth has been the prime contractor on several Department of Energy advanced energy projects which focused on technologies such as duct injection, fluidized bed combustion, gas stream clean-up, and magnethohydrodynamics. G/C is one of the operators of DOE's Pittsburgh Energy Technology Center and is the A/E services contractor for DOE's Morgantown Energy Technology Center, both of which are coal research facilities.

Product/Service	Description
Architecture/Engineering	Complete consulting engineering services, including feasibility studies, engineering analyses, trade-off studies, independent engineers reports, conceptual and final design, cost estimates, planning and scheduling, specifications, quality assurance, construction management, startup and test.

Gould Energy
30 Clairmont Avenue
Thornwood, NY 10594



Telephone: (914) 769-7900
Fax: (914) 769-7905
Chief Executive Officer: Gregory Gould
International Sales Manager: Vincent Furtkevic
Domestic Offices: CRESSON, PA: Box 214, Gallitzin Road, Cresson, PA 16630 TEL. (814) 886-7400; TAMPA, FL: 505 South Falkenburg Road, Tampa, FL 33619 TEL. (813) 689-5785; GORMANIA, WV: P.O. Box 50, East, Gormania, WV 26720 TEL. (304) 693-7613; ST.LOUIS, MO: 11591 Page Service Drive, St. Louis, MO 63146 TEL. (314) 432-0414

For over eighty years, Gould has helped power utilities and coal producers answer one critical question: "Are we getting the BTUs we paid for?" Gould provides tighter asset control with its Fuel Management Information System, Electronic Auditing System and with professional, third party assessment of both coal and total system performance, including weighing, sampling and testing. Gould services are multi-disciplinary. They define quality assurance and accountability across the board. Gould gives operating managers the information they need for better control, conflict resolution, improved performance, and reduced emissions, as well as, documentation of a utility's cost effectiveness.

Product/Service	Description
Fuel Management Information System Facility Operation	A comprehensive system to manage the procurement, receipt, inventory, analysis and accounting for coal and other fuels.
Electronic Audit System Monitoring	A patented real time system of documenting the performance of material handling, sampling and weighing devices.
Technical Services	Sampling, testing, weighing and control services and consulting to give clients "Value Assurance".
Value Assurance Products	Mechanical Sample Divider, Video Training Systems, Bias Testing Software, to help the coal industry get the most value from its coal.

Indeck Energy Services, Inc.
1111 South Willis Avenue
Wheeling, IL 60090



Telephone: (312) 520-3212
Telex: 28-3544
Fax: (312) 520-9883
Chief Executive Officer: Michael P. Polsky
International Sales Manager: Lawrence J. Kostrzewa
International Offices: Please contact headquarters for further information.

Indeck is an experienced developer, owner, operator and maintainer of cogeneration and power generation plants using coal, natural gas, oil and waste fuels. Together with Indeck Power Equipment Company, North America's largest renter and leaser of emergency boilers, the company has been serving industrial and utility steam, power and water treatment needs since 1960. Indeck's broad range of experience includes over 750 MW of generating capacity either operating, under construction or under contract in the U.S. and Canada, with international expansions underway in the U.K. and elsewhere.

Product/Service	Description
Project Development	Indeck will perform all activities from project conception to construction, including cycle design and analysis, siting, engineering, permitting, power and steam sales contracting, fuel supply acquisition and debt and equity financing.
Project Operation	For projects owned in whole or in part by Indeck, Indeck will hire and train operating staff, prepare and follow operating and maintenance budgets, operate the project at optimum economic efficiency and schedule and carry out overhauls and repairs.

John T. Boyd Company
400 Oliver Building
535 Smithfield Street
Pittsburgh, PA 15222

JOHN T. BOYD COMPANY

MINING AND
GEOLOGICAL
ENGINEERS

Telephone: (412) 562-1770
Telex: 532364
Fax: (412) 562-1953
Chief Executive Officer: James W. Boyd
International Sales Manager: Bradley Charles Lewis
Domestic Offices: DENVER, CO: Suite 1028, Lincoln Tower Building, Denver, CO 80295 TEL. (303) 861-4339, FAX (303) 861-4379

John T. Boyd Company, founded in 1943, is the largest independent consulting firm in the United States exclusively serving the world's coal and mineral industries. We provide mining engineering, environmental and financial consultation services to a diverse worldwide base. Our staff is highly respected in the industry for its expertise in all aspects of surface and underground mine planning and evaluation, marketing, transportation, environmental assessment, geology, geotechnical assessment, quality and beneficiation, financial analysis, and contract evaluation.

Product/Service	Description
Architecture/Engineering	Management and supervision of geological and exploration programs; preparation plants and material handling specifications; geotechnical studies and rock mechanics; expert witness and litigation support; fuel supply analysis
Technical Consulting	and contracts; haulage and transportation; permitting; certification of reserves; environmental impact statements; market studies and fuel economics; mine development and feasibility studies; forecast of cost, production and financial return; appraisal and evaluation of mining properties and plants.

JTM Industries, Inc.
777 Franklin Road
Marietta, GA 30067

Telephone: (404) 424-1900
Fax: (404) 424-9290
Chief Executive Officer: Bill G. Fletcher
Executive Vice President: Dennis L. Kinder
Domestic Offices: HOUSTON, TX: 4635 Southwest Freeway, Suite 400, Houston, TX 77027 TEL. (713) 965-9326; ALLENTOWN, PA: 420 W. Emmaus Ave., Allentown, PA 18103 TEL. (215) 797-7674; DAYTON, OH: 240 W. Elmwood Dr., Suite 2011, Dayton, OH 45459 TEL. (513) 435-3194; RICHMOND, VA: 1202 Bellwood Road, Richmond, VA 23237 TEL. (804) 271-7887

JTM Industries, Inc., a wholly-owned subsidiary of USPCI and Union Pacific Corporation, is a full-service by-product management company headquartered in Marietta, GA. JTM provides by-product management programs to the generators of combustion and mineral processing by-products by: (1) developing and implementing proprietary processes which generate higher market value products from coal combustion residue and (2) developing proprietary processes to accommodate reuse and/or disposal of more highly regulated non-hazardous ash streams. JTM has four divisions, each concentrating in a specific area of by-product management while drawing upon the expertise available throughout the corporation.

Product/Service	Description
Ash Management Division	AMD markets coal combustion by-products such as fly ash, bottom ash and fly ash lightweight aggregate throughout the U.S. These markets include concrete and concrete products, highway projects, structural fills, soil stabilization, chemical fixation and grouting. AMD maintains a fully-equipped R & D laboratory in Houston, TX.
Mineral By-Products Division	MBD develops and markets products derived from by-products of cement and lime production. These products include Gypcem®, Multical®, Peanut Maker®, and Pozzalime®. Pozzalime® is used at industrial and commercial waste treatment sites as a drying agent and soil amendment on construction projects. Gypcem® is used to control the set in portland cement. FilterEze™, a relatively new product, is used as a sludge conditioner.
Operations Division	The Operations Division, created January 1, 1989, manages the disposal of combustion by-products in an environmentally acceptable manner. Realizing that proper disposal techniques constitute a major portion of most by-product management programs and are becoming increasingly complicated and expensive, JTM organized this division to totally concentrate its efforts in this area.

(Continued on next page)

JTM Industries, Inc. (Continued)

Municipal Services Division	This is the newest division of JTM. Municipal Services is involved in the utilization and disposal of municipal solid waste ash and currently operates a half-million dollar pilot plant located in Taylorsville, GA, to develop new technology. JTM considers this activity one of the greatest potential growth areas.
KBK Enterprises, Inc.	KBK is the only subsidiary company of JTM. KBK is an engineering group which provides services to utilities, cogenerators, municipalities, real estate developers and manufacturers. KBK provides internal engineering support to JTM and USPCI and offers its unique consulting services on an independent basis in: ash management, landfill design and permitting, environmental site assessment, ash handling equipment design, material processing plant design, construction management and real estate development.

Lane Engineering, Inc.
11739 Chanticleer Drive
Pensacola, FL 32507

LANE ENGINEERING, INC.

Telephone: (904) 492-3050
Chief Executive Officer: John W. Lane

Product/Service	Description
Architecture/Engineering	Professional engineering services.

Mobil Coal Producing Inc.
Box 17772
Denver, CO 80217

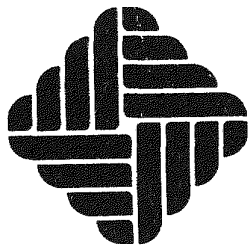
Mobil®

Telephone: (303) 298-2960
Telex: 910-9312633
Fax: (303) 298-2974
General Manager & VP: R. G. (George) McGinn
Vice President--Marketing: J. R. (Bob) Anderson
International Offices: INDONESIA: M. R. (Mike) Wolfhard, Mobil Oil Indonesia Inc., Post Bag 400, Jakarta 10002, Ratu Plaza 27th Floor TEL. 61-21-711211, TELEX 47431 MOI/JKT, FAX 61-21-7202068

Mobil Coal Producing Inc., an established coal producer and marketer, commenced production at its Caballo Rojo Mine in Wyoming's Powder River Basin in 1982. The Mine has a current capacity of over eight million tons per year with the potential to increase its permitted target of 20 million tpy. Coal from Caballo Rojo was successfully shipped to Taiwan Power Company in 1988 through the Roberts Bank terminal in British Columbia. Mobil Coal Producing Inc. is also developing a resource in Indonesia with Nissho Iwai as joint venture partner in its P. T. Berau project. Production is planned from the Berau Mine in early 1991 to supply both the Indonesian and Pacific Rim marketplaces.

Product/Service	Description
Coal Exporters	U. S. production from the Caballo Rojo Mine is low ash, low sulfur with a heating value of 8500 BTU/lb. Deliveries can be made on either the BN or the C&NW/UP railroads. Transshipment via the Roberts Bank Terminal is proven.
Coal Mining	Low ash, low sulfur, good quality coal from Kalimantan, Indonesia is planned for early 1991 shipment.
Coal Transport	Mobil can assist end users with their transportation requirements.
Technical Services	Mobil utilized state-of-the-art computer modeling and retains highly qualified combustion experts to provide domestic and international customers technical coal utilization assistance.

Mountain States Mineral Enterprises, Inc.
4370 South Fremont Avenue
Tucson, AZ 85714-1629



Telephone: (602) 792-2800
Telex: 510-600-7949
Fax: (602) 294-3841
Chief Executive Officer: Edward S. Frohling
International Sales Manager: Edward S. Frohling
Domestic Offices: ELKO, NV: 174 W. Idaho Street, Elko, NV 89801 TEL. (702) 753-8510, FAX (702) 753-8511

Mountain States Mineral Enterprises, Inc. (MSME) established headquarters in Tucson, AZ, USA, in 1969 to provide engineering services to the mining industry of the Southwest United States and Northern New Mexico. Today, MSME serves the entire mineral industry worldwide, specializing in the design and construction of process plants. MSME offers a complete range of services from sampling and analysis to process design, engineering, construction, start-up, and various proprietary technologies for minerals benefication. MSME staff members have extensive background in the design and operation of sophisticated systems and process plants for the recovery of a wide range of minerals.

Product/Service	Description
Engineering/Construction	MSME provides services that include mine planning, feasibility studies, flowsheet development, pilot plant testing, conceptual and detail engineering, procurement, construction, and start-up assistance. These services can be provided for mineral materials handling systems, plant retrofitting, revamping, and new plant design. MSME designs and manufactures heavy media systems, the moving belt separator, and an ultrasonic device for cleaning mineral surfaces, and for making and breaking of emulsions.

MSE, Inc.
P. O. Box 3767
Butte, MT 59702



Telephone: (406) 494-7100
Fax: (406) 494-7230
Chief Executive Officer: Donald R. Peoples
Chief Operating Officer: John M. Sherick
Domestic Offices: BUTTE, MT: Component Development and Integration Facility (CDIF), P. O. Box 3767, Butte, MT 59702 TEL. (406) 494-7100; MultiTech Services Division, P. O. Box 4078, Butte, MT 59702 TEL. (406) 723-8213, FAX (406) 723-9377

MSE, Inc., operates the Component Development and Integration Facility (CDIF)--the largest coal-fired magnetohydrodynamic (MHD) testing facility in the world. The CDIF can also be configured to support engineering-scale development testing programs in other coal and energy technologies. MSE, Inc., provides services in process engineering, facility management and operation, plant engineering and power system design and analysis. MSE offers environmental permitting, monitoring and compliance services. MSE's EPA -- certified laboratory performs organic and inorganic analyses and offers chemical consulting and problem solving services.

Product/Service	Description
Coal Research and Development	Research and development in magnetohydrodynamics (MHD), coal handling and processing, high temperature combustion, and experimental hardware assembly and testing. Full analytical and data services are available.
Engineering Services	Facility and process design and engineering for coal and fossil fuel systems and power plants, including coal handling, pulverizing, inserting and drying, combustion, and instrumentation and control.
Facility Management and Operation	Facility management, startup, and operation to ensure reliable performance in compliance with approved procedures and safety, and environmental regulations.
Laboratory Services	EPA-certified laboratory equipped to sample and perform organic and inorganic analyses on a wide range of sample types including water, soils, coal, tailing, ores, hazardous waste, and airborne pollutants.
Environmental Services	Full range of environmental services for mining, coal processing, and power industries.

The M.W. Kellogg Company
Three Greenway Plaza
Houston, TX 77046-0395



The M.W. Kellogg Company

Telephone: (713) 960-2000
Telex: 166385 MWKHOC
Fax: (713) 960-2032

Chief Executive Officer: Donald C. Vaughn, President
International Sales Manager: J. Albert Stanley, Senior Vice President of Worldwide Sales
Domestic Offices: DARIEN, CT; WASHINGTON, DC
International Offices: ENGLAND: M.W. Kellogg Limited, The M.W. Kellogg Building, Stadium Way, Wembley, Middlesex, HA9 OEE TEL. 44-1-903-8484; BRITISH WEST INDIES: Cayman Islands; ARGENTINA: Buenos Aires; SINGAPORE; PEOPLE'S REPUBLIC OF CHINA: Bejing; INDONESIA: Jakarta; MALAYSIA: Kuala Lumpur

The M.W. Kellogg Company, an international, technology-based subsidiary of Dresser Industries, Inc., is a world leader in the engineering, procurement, construction and commissioning of chemical, petrochemical, fertilizer, gas processing, refining, and computer integrated manufacturing projects. Additionally, Kellogg provides operations and maintenance capabilities. Kellogg is also on the forefront of clean fuels technology with the acquisition of the KRW coal gasification process and development of clean air technology. The company has completed more than 3,000 major projects and many smaller projects worldwide.

Product/Service	Description
Coal Gasification	Kellogg's KRW coal gasification process is capable of operating at high conversion on a wide range of coals. Feeds ranging from lignites and brown coal to high and low volatile bituminous coal have been tested in the Waltz Mill, PA pilot plant using both air and oxygen as oxidants and limestone and dolomite as in-bed sorbents for sulfur. The process can be used to produce low- or moderate-BTU gas for synthesis or for power generation. Hot gas clean-up using Zinc ferrite yields low SOx emissions, and low-BTU gas yields low NOx in combined cycle power plants.
Pressurized Circulation Fluid Bed Combustion	Kellogg's PCFBC processes pulverized coal and limestone or dolomite in a high velocity reactor, which completely combusts the coal while yielding very low SOx and NOx emissions. The pressurized flue gas is expanded to produce power in a combined cycle mode. The sorbent is fully oxidized in the reactor, eliminating subsequent treatment of the ash and spent sorbent for disposal. The technology is a low-cost alternative for cogeneration and power applications.
Flue Gas Desulfurization	Kellogg's flue desulfurization technology utilizes a limestone sorbent in a horizontal scrubber. The technology has been proven in commercial operation on large utility boilers feeding both high and low sulfur U.S. coals. The process features high sulfur removal (greater than 90%) and high calcium utilization. Magnesium or dibasic acid addition is often used to enhance the system. A special feature of the horizontal Weir scrubber is both low flue gas pressure drop and low sorbent circulation, resulting in significant operating advantages.
Design, Procurement, Construction and Plant Services	Kellogg offers EPC capabilities as well as operations and maintenance services on a worldwide basis.
Research and Development Services	Kellogg has bench-scale and pilot plant facilities for the development and testing of coal in gasification and combustion modes. Kellogg's coal lab allows the analysis of coal and ash properties. The company can also prepare design studies for a wide range of process and power applications based on the specific coal properties.

PAR Enterprises, Inc.
12601 Clifton Hunt Lane
Clifton, VA 22024

Telephone: (703) 818-9274
Chief Executive Officer: Wilfred J. Rebello, Ph.D.
International Sales Manager: Wilfred J. Rebello, Ph.D.
International Offices: Please contact company headquarters for further information.

PAR Enterprises, Inc. (PAR) is a small minority owned and operated engineering firm,. The company was formed to provide responsive and cost-effective Planning, Analytical and Research services to executives, scientists and engineers in government and industry. PAR's staff of professionals is particularly experienced with development and application of advanced energy conservation and coal technologies. The staff is also well versed in the development of economic and environmental assessments, energy management systems and energy information systems.

Product/Service	Description
Advanced utilization	The research & development services offered include coal preparation, coal gasification, coal combustion, power generation, heat engines, fuel cells, MHD systems, gas stream cleanup, alternate fuels, air pollution control and environmental impacts. In industrial energy utilization, R&D activities have included waste heat recovery systems, such as, heat exchangers, heat pumps and cogeneration systems and manufacturing process efficiency/productivity improvements using the disciplines of thermodynamics, heat transfer, fluid flow and combustion.

Qualtec, Inc.
11300 U.S. Highway 1, Suite 500
Palm Beach Gardens, FL 33408

Telephone: (407) 775-8300
Fax: (407) 775-8301
Chief Executive Officer: Roger A. Eatman, President
International Sales Manager: Fred Trice, Director, Special Projects
Bob Bartz, Director, Technical Services

QUALTEC, INC. is a subsidiary of FPL Group, Inc. (the holding company which also owns Florida Power & Light Co.). Established in 1985, QUALTEC's utility-related businesses provide specialty support services to U.S. and international electric utilities, independent power producers, and architectural/engineering firms.

Product/Service	Description
Facility Operation	Project management; cost/estimating; planning & scheduling systems; construction management; professional and technical contract labor; power plant equipment inspection, testing, maintenance and labeling; training; procedures development; operations audits; maintenance/outages/backfit services.
Facility Construction	

Resource Technical Services
P.O. Box 2882
Toledo, OH 43606

RTS™
RESOURCE TECHNICAL SERVICES, INC.

Telephone: (800) 551-7206
Fax: (419) 535-5602
Chief Executive Officer: Roger Felthous
International Sales Manager: Jim McCrary
Domestic Offices: MORGAN HILL, CA: Thomas Grinnell, P.O. Box 295, Morgan Hill, CA 95038-0295 TEL. (408) 778-2476, FAX (408) 778-1386

Resource Technical Services has provided engineering, technical training and personnel services to the power industry since 1981. Engineering Services include instrumentation and control system upgrades and development of system specific training devices. Training services include development of computer managed instruction programs, slide/sound and video programs, and text material (student manuals, lesson plans, exams, etc.). Instructors are also available for instruction. Personnel services includes supplying technical and engineering personnel for short or long term assignments. The company currently has contracts with the NRC, DOE, Professional Trade Organizations and U.S. utilities.

Product/Service	Description
Process Control Simulators	Provides a functional replica of a level, flow or temperature process system. Enables students to study control system theory and applications using a small portable unit. The simulators illustrate system responses to changes or adjustments. Two models are available.
Math Computer Managed Instruction	This program consists of 19 lessons ranging from basic number lines through trigonometry. A powerful router enables instructors to assign lessons in a sequence or index type format. The router also records student test scores, objective achievement, permits students to write messages to the instructor while in the program and provides branching capabilities. The program is highly regarded by DOE TRADE organization.
Woodward Governor Simulator	This training device permits students to work on an operating control loop within a controlled setting. The device also permits students to develop skills from simple instrument calibration to complex control loop tuning and troubleshooting. The loop components are plant specific devices with front panel access for adjustment and observation. Individual instruments may be repaired, aligned and calibrated.
Motor-Operated Valve Management System (MOVMS)	A microprocessor controlled instrument that precisely and repeatedly controls the magnitude and duration of force applied during value backseating operations. The unit remotely controls the motor operator at the Motor Control Center. Using the Value Operating data, the device automatically controls the valve in backseat operation and stops valve motion precisely at a programmed predetermined limit.
Training Services	Develop and present site specific courses to clients format. Job analysis, task analysis and auditing services also available.
Engineering Services	Design, construct and install plant instrumentation system upgrades and training simulators.
Personnel Services	Provide technical, operations, maintenance and engineering personnel on a short or long term contract basis.

SFA Pacific, Inc.
444 Castro Street, Suite 920
Mountain View, CA 94041



SFA Pacific, Inc.
Engineers

Telephone: (415) 969-8876
Telex: 269336
Fax: (415) 969-1317
Chief Executive Officer: Ronald L. Dickenson
International Sales Manager: Dale R. Simbeck

SFA Pacific, Inc., provides the following services in advanced utilization of coal and other fossil fuels: conceptual process engineering, technology evaluation, market analysis, economic and financial analysis, and technology venture development. Established in 1980, SFA Pacific, Inc. is an employee-owned consulting engineering firm with no business ties to the development of specific technologies. The company staff is made up of professionals with strong industrial backgrounds in the technology, economics, and market analysis of fuels, chemicals, and power generation.

Product/Service	Description
Power Generation	SFA, Inc. provides expert services in technologies and markets for fossil power generation. This includes conventional and developmental technologies for utility, industrial, and commercial applications.
Coal Gasification	SFA Pacific, Inc. provides broad expertise in all areas of analysis and evaluation for coal gasification applications and markets.
Advanced Combustion	SFA Pacific, Inc. provides expert consulting in a variety of coal combustion, slagging combustion and advanced pulverized combustion.

SSR Engineers, Inc.
2234 Lewis Avenue
P.O. Box 20876
Billings, MT 59104

Telephone: (406) 656-8100
Fax: (406) 652-2758
Chief Executive Officer: J. R. Rush, P.E.
International Sales Manager: W. F. (Bill) Hart

SSR Engineers, Inc. is a medium size consulting firm with 30 years of experience in power system design for substations, transmission, distribution, and utility system studies. In addition to planning and design, SSR Engineers offers a wide variety of testing and technical services. We provide a full range of power engineering services to over 50 utilities, many of which depend on SSR Engineers for all of their power engineering requirements.

Product/Service	Description
Electric Power System Design	Overhead/underground transmission and distribution planning and design; substation planning and design; construction management; co-generation; load management; combustion turbine/diesel generation systems; motor control centers; rate and short circuit studies.
Mechanical Design	Mechanical/electrical design for commercial and institutional buildings, high pressure steam boiler plants thermal storage, energy conservation audits, economic and feasibility studies.
Technical/Testing Services	System commissioning and equipment acceptance testing for relay and control systems, large power transformers, power factor, insulation, and high voltage cable.

Stone & Webster Management Consultants
One Penn Plaza – 250 W. 34th St.
New York, NY 10119



Telephone: (212) 290-7000
Telex: W.U. 12-8291, RCA 276507
Fax: (212) 290-7094
Chief Executive Officer: Frank L. Bradley, Jr.
International Sales Manager: James W. Galambas, Office Manager
Domestic Offices: DENVER, CO: 5500 S. Quebec Street, Englewood, CO: 80111-1914 TEL. (303) 741-7900, TELEX 45-4401 (W.U.), 289251 (RCA), FAX (303) 741-7935; HOUSTON, TX: 330 Barker Cypress Road, Houston, TX 77094 TEL. (713) 492-4000, TELEX 275546 (RCA), FAX (713) 492-4484; BOSTON, MA: 245 Summer Street, Boston, MA 02210 TEL. (617) 589-5111, TELEX 94-0001 94-0977 (W.U.), FAX (617) 589-2156

Stone & Webster Management Consultants supports utilities, coal companies and others such as financial institutions and cogeneration/independent power producers with their operation in the challenging marketplace of today. Services are offered in the areas of: market analysis–competition and pricing, economics and feasibility studies, coal supply and demand, infrastructure review, coal contract review, coal procurement strategy and coal selection economic analysis.

Product/Service	Description
Technical Consulting	The company has an outstanding understanding of domestic and international coal markets. Services can be provided in the areas of market assessment for supply and demand and competitive economics. Evaluate economics of alternative modes of coal transportation. We have the computerized capability for evaluating the life cycle busbar cost of electricity for powerplants burning all ranges of fuel from peat to anthracite coal.

Technology & Management Services, Inc.
20201 Century Boulevard
Germantown, MD 20874

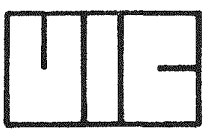


Telephone: (301) 353-0102
Fax: (301) 353-0514
Chief Operating Officer: Roy A. Wujkowski
International Sales Manager: Roger W. A. LeGassie, Vice President

Technology & Management Services, Inc. (TMS), is a corporation with over 10 years of high technology, project management, and environmental expertise, with particular emphasis on fossil energy. The technical staff is comprised of engineers, scientists, and managers with major industrial and U.S. federal government experience. TMS is involved in overseas technology transfer of fossil energy technology and has provided services in this area to the U.S. Department of Energy (DOE) and major corporations. TMS brings sophisticated management skills to financial analysis and decision-making support to major fossil energy projects. The TMS staff is skilled in many areas of environmental impact analysis, waste disposal systems and major project financing.

Product/Service	Description
Environmental Systems	TMS has performed a number of significant environmental impact analyses of major fossil energy systems. The staff is capable of providing technical and engineering services for emissions control and waste disposal systems. TMS has provided technological support for the U.S. DOE on the Clean Coal Technology Demonstration Programs.
Technical Consultants	Over a 10 year period, TMS has served as a technology and management services consultant to major U.S. Government agencies and corporations. Many of these services have centered on fossil energy technology, including project management and financial analysis of major energy projects.
Financing and Resource Packaging	TMS has developed sophisticated management tools for the analysis and management of major engineering and financial projects. TMS senior staff have significant experience with foreign countries and corporations in developing and financing energy projects.

United Industries Corporation
12835 Bell-Red Road, #120
Bellevue, WA 98005-2635



Telephone: (206) 453-8995
Fax: (206) 462-4666
Chief Executive Officer: J. T. Lin
International Sales Manager: J. T. Lin

United Industries Corp. (UIC) is an engineering consulting firm specializing in energy and environment. UIC has developed a series of numerical models for calculating the three dimensional wind flow field over coal piles using wind breaks and wind turbines for reduction of fugitive coal dust emanating from the coal yard. UIC, serving as a consultant to Taiwan Power Co., is evaluating the feasibility of utilizing wind turbines combined with porous fences to reduce the emission of fugitive coal dust and meet the air quality standards.

Product/Service	Description
UIC 3D wind flow model	Calculate three-dimensional wind flow field in complex terrain.
UIC wind turbine array performance model	Calculate the production of wind turbine array in complex terrain.
UIC wind break model	Calculate the wind flow reduction due to wind breaks and wind turbines. It can be used to design windbreaks around a coalyard.

Vernex Research Corporation
P. O. Box 1263
Hampton Bays, NY 11946

Vernex Research Corporation
ADVANCING COAL SCIENCE & TECHNOLOGY

Telephone: (516) 728-1304
Chief Executive Officer: William Slegeir
International Sales Manager: Renee Slegeir
International Offices: Please contact company headquarters for further information.

Vernex Research Corporation was founded in 1988 to enhance and market unique, proprietary software for coal selection and utilization initially conceived by Slegeir Associates. Vernex Research Corporation continues a leadership position in evaluating the impact of mineral matter and ash chemistry on boiler slagging tendencies. Vernex' lead product, PC-compatible software called CALAFT, augments and enhances the conventional ASTM ash fusion temperature (AFT) test, overcoming significant deficiencies in applying AFTS to boiler performance. CALAFT, which predicts AFTs from chemical composition, avoiding inadequacies of the conventional test, offers coal suppliers and users an unprecedented level of power in assessing boiler fusibilities and slagging tendencies.

Product/Service	Designation	Description
Computer Modeling Software	CALAFT Ver. 5.00	Predicts AFTs from ash ultimate analyses for coals and coal blends. May be used to estimate effects of additives and some differences between boiler and lab ash. Provides estimation of the reliability of each predicted AFT. Works interactively or processes files of data; results can be imported into spreadsheet program. Available for licensing Oct. 1, 1989.

Western Research Institute
P.O. Box 3395, University Stn.
365 North 9th Street
Laramie, WY 82071

WESTERN RESEARCH INSTITUTE

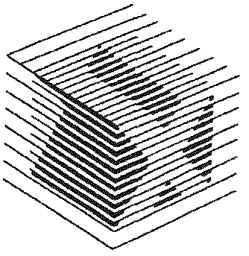
Telephone: (307) 721-2011
Fax: (307) 721-2345
Chief Executive Officer: Wesley E. Barnes
Vice President of Marketing: R. Glen Vawter
Domestic Offices: WASHINGTON, DC: 2300 M Street, N.W., Suite 900, Washington, DC 20037-1434 TEL. (202) 452-1803

The Western Research Institute (WRI) is a nonprofit research and development organization offering expertise in science and engineering. WRI pioneered research into in situ recovery of oil shale, tar sand, and coal. WRI's recent research focus is on fossil energy and related environmental programs, particularly with respect to coal. WRI is conducting research programs for industry and government in clean coal, coal preparation, coal gasification, coal waste, co-processing, petroleum geosciences, and enhanced oil recovery. Environmental programs include research and services in industrial and hazardous waste, environmental engineering, spill testing, in situ monitoring and remediation, toxicity assessment, geotechnical services, and analytical services.

Product/Service	Description
Coal Technology	WRI develops coal technology such as coal drying, coal gasification, and coal waste management processes from concept through pilot and field testing. WRI's engineers and scientists maintain expertise in the development of all phases of coal research and development including process monitoring and product evaluation. WRI maintains a modern 23-acre engineering facility for bench and pilot testing various coal processes.
Coal Chemistry	WRI performs structural and conversion evaluation associated with coal conversion processes and includes thermal and oxidation chemistry. WRI also performs kinetic studies.
Environmental Evaluations and Environmental Engineering	WRI performs environmental evaluations in support of permitting applications, permitting compliance, and environmental remediation. This includes air, water, and land applications. WRI's experienced environmental engineers and scientists provide design and testing of conventional and novel remediation systems to treat wastewater, groundwater, air emissions and solid wastes.

Xcel Group, Inc.
1126 S. 70th Street
Suite N-206
West Allis, WI 53214

Telephone: (414) 475-4001
Telex: 269441
Fax: (414) 475-3578
Chief Executive Officer: Gerald T. Petersen
International Sales Manager: Paul S. Gurski



XCEL GROUP INC.

Process engineering firm with extensive background in coal technology process development to include the specification, design, construction, start-up and operation of coal processing equipment ranging from bench to commercial-scale facilities. In 1988, Xcel was awarded a design, supply and test NATO-funded contract in international competition for an R&D gasification facility to be located in Athens, Greece. Technical support services include feasibility assessments, U.S. souring of equipment, custom equipment design, market research and application studies. Particularly knowledgeable in U.S. utility market "clean fuel" needs and combined cycle applications. Xcel is readily accessible via the World Trade Council electronic network - address code: XCEL G.

Product/Service	Description
Technology/Evaluations	Evaluations of emerging and commercially mature technologies to include technical and economic evaluation for specific market applications.
"Clean Coal" Applications	Investigation of a specific technology or competing technologies for utility-scale or large industrial power generation applications.
Equipment Souring/Design	Identification of U.S.-based sources to meet specific processing needs or custom design and supply required equipment.
Operations Support	Start-up and operational procedures development and problem solving.

V. FINANCING AND RESOURCE PACKAGING

Bechtel Enterprises
50 Beale Street
P. O. Box 3965
San Francisco, CA 94119-3965



Telephone: (415) 768-8502
Telex: U.S. 34783, Int'l. 184907 BECHTEL SFA
Fax: (415) 768-1416/2154
Chief Executive Officer: John W. Weiser
International Sales Manager: Stephen C. Williams
Domestic Offices: GAITHERSBURG, MD: 15740 Shady Grove Road, Gaithersburg, MD 20877-1401 TEL. (301) 258-3934; WASHINGTON, DC: 1620 Eye Street, N.W., Suite 703, Washington, DC 20006-4005 TEL. (202) 393-4747
International Offices: ENGLAND: Charles W. G. Allen, 245 Hammersmith Road, London W6, 8DP TEL. 44-1-846-5951

Bechtel Enterprises, a member of the Bechtel group of companies, is a leading developer and merchant banker in the engineering and construction industry. Comprehensive financing services are provided to help partners and clients in every phase of development. Bechtel Enterprises actively participates in each phase of project development, from feasibility analysis and commercial structuring to management of engineering, construction, and operations. Within Bechtel Enterprises, Bechtel Financing Services, Inc. provides a full range of project financing services.

Product/Service	Description
Project Development	Bechtel Enterprises acts as a development partner, sharing project risks, providing commercial expertise, and managing technical requirements. Bechtel Enterprises can fund high-risk development efforts and provide equity to take long-term ownership positions in development projects.
Project Financing	Bechtel Enterprises has raised over $6 billion in financing for client projects over the last decade. Financing services include feasibility analysis, modeling, commercial and security structuring, and arranging project debt and equity.

Citizens Fidelity Energy Company
Affiliate of PNC Financial Corporation
Citizens Plaza
Louisville, KY 40296



Telephone: (502) 581-4955
Telex: 204280
Fax: (502) 581-2302
Chief Executive Officer: Michael B. Vairin, President
International Sales Manager: Sarah Waterfill, Manager
Domestic Offices: LEXINGTON, KY: 101 E. Vine St., Lexington, KY 40507 TEL. (606) 281-0459

Since 1977, Citizens Fidelity Energy Company has earned a reputation as an innovator in meeting the energy industry's financial needs. We provide financing for producers, brokers and vendors in the coal, petroleum, gas and mineral industries in Kentucky and the surrounding region. The Energy Company has tailored financing for reserve-based and production projects, contract miner operations and exports. We also offer stockpile and working capital financing, and we have developed an inexpensive reclamation surety program that has been copied in other states. Our staff combines financial skill with technical knowledge, enabling us to make decisions quickly in serving energy industry clients.

Product/Service	Description
Financing	Acceptance financing; accounts receivable loans; acquisition assistance; cash flow lines; certificates of deposit; coal reserve financing; development loans; equipment financing; equipment leasing loans; export financing; foreign exchange trading; industrial revenue bonds; invoice or accounts receivable financing; international financing services; lease financing; leasehold improvement loans; letters of credit; lock box; mortgage loans; project financing; receivables financing; security loans - mining equipment; surface mining equipment loans; transfer agent; trust services; and underground mining equipment loans.

Dominion Energy
Federal Reserve Building
P. O. Box 26532
Richmond, VA 23261



Telephone: (804) 775-5814
Fax: (804) 775-5720, 775-5822
Chief Executive Officer: Ronald H. Leasburg
International Sales Manager: John J. Frank
International Offices: Please contact company headquarters for further information.

Dominion Energy is the cogeneration power development subsidiary of Dominion Resources, Inc., a $10 billion holding company headquartered in the capital of the state of Virginia. Dominion Resources owns and operates one of America's largest electric utilities, Virginia Power, which serves more than 1.7 million homes and businesses, over 32,000 square miles, with 12,000 megawatts in electric generating capacity. Dominion Energy, established in 1987, has interests in United States projects utilizing various technologies and fuel sources that total more than 2,000 megawatts. It brings full-service capability to the growing global market.

Product/Service	Description
Facility Construction	Dominion Energy offers full construction services, including project design, and legal and environmental permitting. It brings the combined experience and expertise of a staff that has overseen the creation and modification of some of America's most technologically advanced generating systems.
Facility Operation	After construction Dominion Energy offers full operations services.
Financing	Through its Dominion Resources, Inc., parent company, Dominion Energy has ongoing working relationships with more than 80 investment and commercial banks in the United States, Europe and Asia. It has secured financing for major energy projects around the United States.

Fluor Daniel
3333 Michelson Drive
Irvine, CA 92730

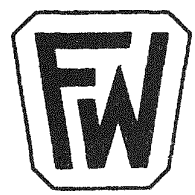


Telephone: (714) 975-2000
Telex: 68-1441
Fax: (714) 975-5981/ 5963
Chief Executive Officer: Vincent L. Kontny
International Sales Manager: Charles P. Pringle
Domestic Offices: CHICAGO, IL: TEL. (312) 368-3500; GREENVILLE, SC: TEL. (803) 298-2500; HOUSTON, TX TEL. (713) 263-1000; PHILADELPHIA, PA: TEL. (609) 985-1101; RICHMOND, VA: A. T. Massey Coal Company, Inc. TEL. (804) 788-1800
International Offices: SAUDIA ARABIA: Fluor Arabia, Dhahran TEL. (966) 3-857-8577; AUSTRALIA: Fluor Daniel Australia, Melbourne TEL. (61) 03-520-4444; CANADA: Fluor Daniel Canada, Calgary TEL. (010) 403-259-1110; THE NETHERLANDS: Fluor Daniel BV Netherlands, Haarlem TEL. (31) 23-33-51-500; WEST GERMANY: Fluor Daniel GmbH, Dusseldorf TEL. (49) 211-4551-1; ENGLAND: Fluor Daniel, Ltd., London TEL. 44-1-222-7717

Fluor Daniel, with over $12 billion in backlog, is organized to provide a broad range of services to clients in five business sectors: Industrial, Process, Power, Hydrocarbon and Government. Services include feasibility studies, conceptual design, project management, engineering, construction, procurement, technical services, project financing, maintenance and plant operations. Fluor Daniel provides global capability from over 50 offices located around the world. Our affiliate, A. T. Massey Coal Company, produces both high-quality, low-sulfur steam coal and metallurgical coal and ranks among the 10 largest coal companies in the United States. In addition to sales of produced coal, Massey also markets coal for independent producers.

Product/Service	Description
Architectural/Engineering	Fluor Daniel, who is currently rated #1 among the top 400 U.S. Construction Companies by Engineering News Record, provides a complete range of engineering services utilizing 2D and 3D plant design systems. These services include a Project Management capability which is supported by a wide range of engineering project control systems.
Facility Constructability/ Maintainability	Constructability/Maintainability is the infusion of Fluor Daniel experience with engineering technology to provide good designs balanced against project cost and schedule goals. Fluor Daniel is the U.S. leader in on-the-job safety in major construction and maintenance projects -where work is performed at an average of 1200 sites per year.
Financing	Fluor Daniel is exposed to a broad range of financing structures that can be tailored to suit a client's requirements. Assistance is then provided in securing the necessary financial commitments.

Foster Wheeler Corporation
Perryville Corporate Park
Clinton, NJ 08809-4000



Telephone: (201) 730-4000
Fax: (201) 730-4360
Chief Executive Officer: L. E. Azzato
International Sales Managers: B. P. Stephan, I. G. Lutes
Domestic Offices: ATLANTA, GA; BOSTON, MA; CHARLOTTE, NC; CHICAGO, IL; DENVER, CO; HOUSTON, TX; KANSAS CITY, MO; LOS ANGELES, CA; NEW ORLEANS, LA; NEW YORK, NY; PHILADELPHIA, PA; PITTSBURGH, PA; WASHINGTON, DC; AND WINTER PARK, FL
International Offices: AUSTRALIA: TELEX 152838 REWOP AA; CANADA: TELEX 055-60042; CHINA: TELEX 210396 REWOP CN; COLUMBIA: TELEX 396-43254 REWOP CO; ENGLAND: TELEX 851-263984; FRANCE: TELEX 842-210 782; HONG KONG: TELEX 37512 FWAL HX; ITALY: TELEX 843-310548; JAPAN: TELEX 2323192; NETHERLANDS: TELEX 844-34264; NIGERIA: TELEX 22365 FOSWLD NG; SINGAPORE: TELEX RS 39292 FWINTL; SPAIN: TELEX 83122275; contact the main office for further information.

(Continued on next page)

Foster Wheeler Corporation (Continued)

Foster Wheeler Corporation is an engineering, manufacturing, construction, real estate development and service organization with 23 subsidiaries operating worldwide. Founded in 1927, it is currently one of the world's largest engineering and construction organizations. International activities are conducted by affiliates in England, France, Italy, Spain, and Canada. U.S. based industrial subsidiaries supply diversified engineering technologies and allied equipment. Foster Wheeler Energy Corporation, a major United States subsidiary, designs, fabricates, maintains, manufactures, and constructs steam generating equipment for electric utilities and industry. This Foster Wheeler subsidiary furnishes condensers, feedwater heaters, and other major auxiliary equipment for coal, oil, and gas-fired installations in the United States and abroad. Foster Wheeler's application of alternate energy sources have advanced the state of the art. Current projects involve refuse-to-energy plants, the cogeneration of industrial steam and electric power, a proprietary sludge drying process and high technology heat recovery equipment.

Product/Service	Description
Advanced Utilization	Foster Wheeler Development Corp., Livingston, NJ (201) 535-2300
Architecture/Engineering (A&E)	Foster Wheeler USA Corp., Clinton, NJ (201) 735-4770
Boiler Equipment	Foster Wheeler Energy Corp., Clinton, NJ (201) 730-4310
Coal Derivatives	Foster Wheeler USA Corp., Clinton, NJ (201) 730-4606
Facility Construction	Foster Wheeler Constructors, Clinton, NJ (201) 735-5076
Facility Operation	Foster Wheeler Management Operations, Ltd., Houston, TX (713) 872-6911
Financing	Foster Wheeler Power Systems, Clinton, NJ (201) 730-4000

Goodwin & Soble Attorneys at Law
Suite 350
1300 Nineteenth Street, N.W.
Washington, DC 20036

GOODWIN & SOBLE

Telephone: (202) 223-8282
Telex: 272691 GOSO UR
Fax: (202) 223-8560

The law firm of Goodwin & Soble specializes in international and domestic corporate and commercial transactions. Located in Washington, DC, the firm has unique international expertise. Members of the firm have represented individuals, corporations, joint ventures, government-owned corporations, and foreign governments in the United States and overseas. The firm's transactional work is complemented by a sophisticated corporate, legislative, banking and regulatory practice tailored to Washington, DC. The firm has expertise in trade and customs law and in U.S. export control matters. Members of the firm have advised clients on virtually every form of commercial transaction, including international sales agreements, joint venture arrangements and countertrade and barter.

Product/Service	Description
Consultants	Provides services in a wide variety of areas, including: U.S. laws affecting international trade and business; international investments and acquisitions; joint ventures; technology transfer/licensing agreements; structuring of countertrade, barter and other special arrangements; international sales, distribution, licensing arrangements, etc.
International Law and Commercial Transactions	

Indeck Energy Services, Inc.
1111 South Willis Avenue
Wheeling, IL 60090

Telephone: (312) 520-3212
Telex: 28-3544
Fax: (312) 520-9883
Chief Executive Officer: Michael P. Polsky
International Sales Manager: Lawrence J. Kostrzewa
International Offices: Please contact headquarters for further information.

Indeck is an experienced developer, owner, operator and maintainer of cogeneration and power generation plants using coal, natural gas, oil and waste fuels. Together with Indeck Power Equipment Company, North America's largest renter and leaser of emergency boilers, the company has been serving industrial and utility steam, power and water treatment needs since 1960. Indeck's broad range of experience includes over 750 MW of generating capacity either operating, under construction or under contract in the U.S. and Canada, with international expansions underway in the U.K. and elsewhere.

Product/Service	Description
Project Development	Indeck will perform all activities from project conception to construction, including cycle design and analysis, siting, engineering, permitting, power and steam sales contracting, fuel supply acquisition and debt and equity financing.
Project Operation	For projects owned in whole or in part by Indeck, Indeck will hire and train operating staff, prepare and follow operating and maintenance budgets, operate the project at optimum economic efficiency and schedule and carry out overhauls and repairs.

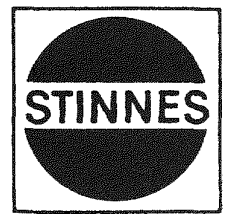
Pyropower Corporation
5120 Shoreham Place
San Diego, CA 92122

Telephone: (619) 458-3000
Telex: 506-170
Fax: (619) 458-9132
Chief Executive Officer: Eric J. Oakes
International Sales Manager: Callixtus J. Aulisio

Pyropower Corporation, a subsidiary of A. Ahlstrom Corporation, provides product development, engineering, design, procurement, construction, start-up, operations, and after market services for the AHLSTROM PYROFLOW circulating fluidized bed boilers. These boilers are for steam and electricity generation using solid fuel including, high moisture, high ash and high sulfur fuels in an environmentally safe manner. Successful on-schedule construction and reliable operating experience with PYROFLOW has been thoroughly demonstrated with over 75 units in commercial operation or under construction worldwide.

Product/Service	Description
Boiler Equipment	Pyropower offers complete fluidized bed boilers with auxiliary equipment plus additional balance of plant equipment.
Facility Construction	Pyropower offers complete construction of fluidized bed boilers with auxiliary equipment plus additional balance of plant equipment.
Facility Operation	Pyropower provides complete services to operate circulating fluidized bed boiler plants.
Financing	Pyropower provides full capabilities to arrange project financing for power projects.
Advanced Utilization	Pyropower is developing advanced utilization of solid fuel fired boilers such as pressurized fluidized bed boilers.

Stinnes Coal Company, Inc.
750 Third Avenue
New York, NY 10017



Telephone: (212) 986-1515
Telex: 236767A STCC UR
Fax: (212) 949-7436

Chief Executive Officer: Michael T. Madden, President
George A. McClellan, Senior Vice President
Robert P. Yowell, Assistant Vice President

Domestic Offices: KY: Stinnes Coal Company, Inc., 131-27 U. S. Rt. 23, Catlettsburg, KY 41129 TEL. (606) 739-8441, FAX (606) 739-8443

International Offices: WEST GERMANY: Stinnes Intercoal GmbH, Humboldtring 15, Mulheim/Ruhr 12, 4330 TEL. 2087-4940, TELEX 856095 STC D, FAX 208-494-698; WEST GERMANY: HCM Intercoal GmbH, Humboldtring 15, Mulheim/Ruhr 12; WEST GERMANY: Stinnes Intercoal GmbH, Ballindamm 17, Hamburg 2000 TEL. 40-301-0030, TELEX 21-63-121 STI D, FAX 30-10-0340; ENGLAND: G. Harbottle & Co., Ltd., Block "A" Stottish Life House, Archbod Terrace, Newcastle upon Tyne NE21DA TEL. 91-281-7735, TELEX 53406 GEHAR, FAX 91-281-1884; NETHERLANDS: Stinnes Intercarbon B.V., Beurs Building, 7th Floor, Room no. 760-761, Beursplain 37, Rotterdam 3011 AA P.O. Box 30157, 3001-DD Rotterdam TEL. 10-405-3111, TELEX 25155 STI, FAX 10-405-5026; SPAIN: Intercarbon Espana, S. A., Alcala 93-4-a, Madrid 28009 TEL. 1-522-7069 TELEX, 22082 STINN, FAX 1-43-19780; ITALY: Agenzia Caarboni S.R.L., Corso Aurelio Saffi 15/3, Genova 16128, Casella postale 1425, 161121 Genova TEL. 10-566773, 10-55-91606, TELEX 271392 INTRA, FAX 10-53-2871; BRAZIL: Stinnes Intercarbon do Brazil, Avenida Rio Branco, 52, 15th Floor, CEP 20090, Rio de Janeiro TEL. 21-223-2118 TELEX, 21-253-4342, FAX 21-253-4679; SINGAPORE: Stinnes Intercoala Pte., Ltd. 18/06 Goldhill Plaza, 1130 TEL. 25-18755, TELEX 28921 STINCO, FAX 253-4030; AUSTRALIA: Stinnes Intercoal Australia, PTY, Ltd. 17 Black's Road, Arcadia, N. S. W. 2159 TEL. 2-653-1533, FAX 2-653-2159

Stinnes Coal Company is part of a complex network, namely Stinnes Intercarbon, AG, which is a subsidiary of VEBA, AG, a privately held, wholly owned German-based company which is one of the major independent coal traders in the markets of the world. Our coal trading activities are worldwide. We export coal from the Federal Republic of Germany, the German Democratic Republic, the USA, Canada, Columbia, Venezuela, South Africa, Australia, Poland, the CSSR, the USSR and the People's Republic of China. We import into the Federal Republic of Germany, other European countries, North Africa, Japan, South America, Canada, the Middle and Far East. We supply coal to power stations, steel mills, foundries and other major end users. We also furnish the industrial heating and the domestic fuel markets with whatever type of coal is required.

Product/Service	Designation	Description
Coal Exporters Coal Transport Financing Shipping		The product range we trade in includes the following categories: Steam coal, industrial producers, coke freeze, briquettes as well as household coal. Our long standing relations with our suppliers, our own trading companies at home and abroad and an efficient transportation system guarantees reliable and continuous supplies. We offer producers and suppliers a distribution network with representations in all of the world's major coal using regions. In conjunction with our affiliated companies, we can offer our own storage and transportation as well as screening and blending facilities.
	Curtis Bay Company	Located in Baltimore, MD, this terminal transfers coal from rail to ground storage for loading to vessel or barge for domestic or export movement.

Technology & Management Services, Inc.
20201 Century Boulevard
Germantown, MD 20874

Telephone: (301) 353-0102
Fax: (301) 353-0514
Chief Operating Officer: Roy A. Wujkowski
International Sales Manager: Roger W. A. LeGassie, Vice President

Technology & Management Services, Inc. (TMS), is a corporation with over 10 years of high technology, project management, and environmental expertise, with particular emphasis on fossil energy. The technical staff is comprised of engineers, scientists, and managers with major industrial and U.S. federal government experience. TMS is involved in overseas technology transfer of fossil energy technology and has provided services in this area to the U.S. Department of Energy (DOE) and major corporations. TMS brings sophisticated management skills to financial analysis and decision-making support to major fossil energy projects. The TMS staff is skilled in many areas of environmental impact analysis, waste disposal systems and major project financing.

Product/Service	Description
Environmental Systems	TMS has performed a number of significant environmental impact analyses of major fossil energy systems. The staff is capable of providing technical and engineering services for emissions control and waste disposal systems. TMS has provided technological support for the U.S. DOE on the Clean Coal Technology Demonstration Programs.
Technical Consultants	Over a 10 year period, TMS has served as a technology and management services consultant to major U.S. Government agencies and corporations. Many of these services have centered on fossil energy technology, including project management and financial analysis of major energy projects.
Financing and Resource Packaging	TMS has developed sophisticated management tools for the analysis and management of major engineering and financial projects. TMS senior staff have significant experience with foreign countries and corporations in developing and financing energy projects.

INDEX BY COMPANY NAME

A. T. Massey Coal Company, Inc. 16, 35
Abresist Corporation 106
Acurex Corporation 5, 61, 84, 107, 135, 199
AEP Energy Services, Inc. 62, 85, 221
AFT, Inc. 6, 62, 121, 152
Agglite Corporation 6, 122
Alabama Coal Association 221
Allegheny Boiler Tube & Mfg. Co. 108, 136
Allen-Bradley Company 108
AMAX Coal Industries, Inc. 36
American Society for Testing and Materials 174
Anchor International 216
Andalex Resources, Inc. 17, 36
Anker Energy Corporation 17, 37
Applied Management Sciences, Inc. 222
Aptech Engineering Services, Inc. 109, 169, 223
Arch Coal Sales Company, Inc. 18, 37
ARCO Coal Company 18, 38
ARCTECH, Inc. 7, 63
Arctic Slope Regional Corporation 19, 38
Arthur D. Little, Inc. 63, 223
ASEA Babcock 64
Ashland Coal, Inc. 19, 39
Atlantic Research Corporation 7, 64
B. L. Montague Company, Inc. 85, 152
Babcock & Wilcox 65, 109, 122
Baker Hughes Mining Tools, Inc. 153
Baker/TSA, Inc. 86, 123, 224
Bechtel Enterprises 65, 251
Berwind Coal Sales Co. 39
Bessemer & Lake Erie Railroad Co. 183
Black & Veatch, Engineers-Architects 86, 176
The Bowdil Company 154
BP Coal (USA) Inc. 20, 40
Braun Engineering Associates, P.C. 136, 170, 200
The Bright Coal Group 20, 40, 184
Brown and Root, Inc. 87, 137, 224
Buckeye-Industrial Mining Co. 41
Bucyrus-Erie Company 155
Buffalo Coal Company 41
Burlington Northern Railroad 184
Burns & McDonnell 88
Cannelton Sales Company 42
Carbon Fuels Corporation 8
Centralia Coal Sales Company 21
Challenge Engineering Consultants, Inc. 225
Charwill, Inc. 123
Chas. T. Main, Inc. 88, 226
Chatterjee and Associates, Inc. 8, 226
Chicago and North Western 185
Citizens Fidelity Energy Company 252
CLI Corporation 42, 66, 89, 137
Coal *Extraction and Utilization* Research Center 43, 227
Coal Industry Consultants, Inc. 228
Coal Quality Development Center 66, 228
Coal Rep International 21, 44
Coal Technology Corporation 229
Coastal Coal Sales, Inc. 22, 44
Colowyo Coal Company 44
Combustion Power Company, Inc. 67, 110
Compton Metals 110
Conco Systems, Inc. 111, 200, 229
Consolidation Coal Company 22, 45, 67, 185, 201, 230
Control Components Inc. 111, 170
Coppus Engineering Corporation 171
Cordero Mining Co. 46
CSX Transportation, Inc. 186
Cyprus Coal Company 23, 46
Dames & Moore 231
Diamond Power Specialty Company 112
Dominion Energy 138, 202, 252
Dorgan Associates, Inc. 89, 232
East-West Center 232
EIMCO Coal Machinery Inc. 155
Electric Fuels Corporation 9, 47, 68, 186, 202
Ellison Consultants 10, 69, 124, 233
Eneract Management Services, Inc. 203
Energotechnology Corporation 69, 233
Energy and Environmental Research Corporation 70, 124, 234
Energy Systems Associates 90, 125, 138
The ERM Group 125, 234
ESCO Corporation 156
Farrell-Cooper Mining Company 24, 48, 187
Fieldston Company, Inc. 175, 235
FluiDyne Engineering Corporation 113
Fluor Daniel 90, 236, 253
Foreston Coal Corporation 24
Foster Wheeler Corporation 10, 70, 91, 113, 139, 204, 253
Fuel Tech 114, 204
GAI Consultants 92, 126, 236
General Electric 171
General Physics Corporation 205, 237
GeoResearch, Inc. 127, 238
Gilbert/Commonwealth, Inc. 93, 238
Goodman Equipment Corporation 157, 177, 188
Goodwin & Soble Attorneys at Law 254
Gould Energy 206, 239
Graver Water International 127
Gundlach, T.J. Machine Company 166
Gunther George Schmid Associates, Inc. 216
H. B. Zachry Company 48, 140, 206
Hampton, J. W., Jr. & Co., Inc. 217
Harnischfeger Corporation 158
Harris Group Inc. 94, 141, 159, 207
Henkels & McCoy, Inc. 94, 141
Henry Vogt Machine Co., Inc. 114
Honeywell Incorporated 71, 115

Howard Needles Tammen & Bergendoff 95
ICF Kaiser Engineers 96, 142
Imperial-Pacific Investments, Incorporated 25, 49, 188
Indeck Energy Services, Inc. 172, 207, 239, 255
Ingram Coal Company 25, 49
International Freight Services, Inc. 217
Interstate Equipment Corporation 143, 159, 178, 189
The Irwin Brown Company 217
Island Creek Corporation 50, 189
J. W. Hampton Jr. & Co., Inc. 217
Jeffrey Division-Dresser Industries Inc. 160
Jervis B. Webb Company 161, 178
Jim Walter Resources, Inc. 51
John Fabick Tractor Company 161
John S. Connor, Inc. 190, 218
John T. Boyd Company 96, 240
JTM Industries, Inc. 11, 128, 240
K-Fuel Partnership 12, 25, 72, 143
Kaiser International Corporation 191, 208
Kellogg, The M.W. Company 74, 98, 130, 145, 209, 243
Kennedy Van Saun Corporation 115, 162
Kerr-McGee Coal Corporation 26, 51
Komatsu Dresser Co. 163
Kunkle Valve Division 116
Lafarge Corporation 13, 73
Lane Engineering, Inc. 97, 241
M.G. Maher & Company, Inc. 191, 219
The M.W. Kellogg Company 74, 98, 130, 145, 209, 243
Maher, M.G. & Company, Inc. 191, 219
Maran Coal Corporation 27
Marathon Letourneau Company 163, 179
Massey, A. T. Coal Company, Inc. 16, 35
McNally Systems, Inc. 164, 180
Mingo Logan Coal Company 52
Mobil Coal Producing Inc. 27, 53, 192, 241
Monex Resources 13, 129
Montague, B. L. Company, Inc. 85, 152
Mountain States Mineral Enterprises, Inc. 144, 164, 242
MSE, Inc. 73, 97, 208, 242
National Mines Corporation 28, 53, 210
NEDRAC, Inc. 219
NERCO Coal Corporation 28, 54, 192
NUS Corporation 99, 210
Oglebay Norton Company 54, 146, 193, 211
Otisca Industries, Ltd. 75
P&N Coal Company 55
Pacific Coast Coal Co., Inc. 55
PAR Enterprises, Inc. 75, 244
Parsons Brinckerhoff Quade & Douglas, Inc. 99
Passamaquoddy Technology 14, 131
Peabody ABC Corporation 165
Peabody Development Company 29
Peabody Engineering Corp. 116
Pecten Coal International 29
Pedco, Incorporated 76
Pittston Coal Export Corp. 30
Polyken Technologies 180
Port of Long Beach 193
Porta-Kamp Houston 146
Primary Coal, Inc. 30
Pyro Mining Company 56
Pyropower Corporation 76, 117, 147, 211, 255
Quad Three Group, Inc. 100, 172
Qualtec, Inc. 147, 212, 244
Radian Corporation 77, 131
Radix Group International 220
REICHdrill 56, 165
Resource Technical Services 212, 245
Riley Stoker Corporation 77, 117, 148
Schmidt Associates, Inc. 78, 100, 118, 148
SFA Pacific, Inc. 246
Sheppard T. Powell Associates 118, 213
Southern Pacific Transportation Company 194
Spire Corporation 119
SSR Engineers, Inc. 101, 173, 246
Steam Turbine Alternative Resources 173
Stinnes Coal Company, Inc. 31, 194, 256
Stone & Webster Engineering Corporation 57, 79, 101, 195
Stone & Webster Management Consultants 247
Summers Fuel, Inc. 32
Sun Coal Company 15, 58
T.J. Gundlach Machine Company 166
Technology & Management Services, Inc. 132, 248, 257
Terra Technology Corporation 166
Texaco Development Corporation 79, 132
Tippett & Gee, Inc. 102
Total American Mining, Inc. 32, 58, 196
TRW Combustion Business Unit 80, 119
Ultrasystems Engineers and Constructors Inc. 81, 102, 149, 213
Union Pacific Railroad Company 196
United Coal Company 33, 59
United Engineers & Constructors Inc. 103, 150, 214
United Industries Corporation 133, 167, 248
Universal Energy International, Inc. 81
Utah Railway Company 197
Utility Fuels, Inc. 197, 215
Vernex Research Corporation 249
W.R. Zanes & Co. of Louisiana, Inc. 220
Wahlco, Inc. 134
Welded Construction Company 150, 198
WEMCO 168
Western Energy Company 82
Western Research Institute 249
Westmoreland Coal Company 33, 59
Willbros USA, Inc. 104, 151, 181
Williams Technologies, Inc. 15, 82, 104, 198
Xcel Group, Inc. 83, 105, 215, 250
Zachry, H. B. Company 48, 140, 206
Zanes, W.R. & Co. of Louisiana, Inc. 220
ZBA, Inc. 105
Zeigler Coal Company 60
Zurn Industries, Inc. 120

INDEX BY PRODUCT/SERVICE CLASSIFICATION

Coal Derivatives 5

Acurex Corporation 5
AFT, Inc. 6
Agglite Corporation 6
ARCTECH, Inc. 7
Atlantic Research Corporation 7
Carbon Fuels Corporation 8
Chatterjee and Associates, Inc. 8
Electric Fuels Corporation 9
Ellison Consultants 10
Foster Wheeler Corporation 10
JTM Industries, Inc. 11
K-Fuel Partnership 12
Lafarge Corporation 13
Monex Resources 13
Passamaquoddy Technology 14
Sun Coal Company 15
Williams Technologies, Inc. 15

Coal Exporters 16

A. T. Massey Coal Company, Inc. 16
Andalex Resources, Inc. 17
Anker Energy Corporation 17
Arch Coal Sales Company, Inc. 18
ARCO Coal Company 18
Arctic Slope Regional Corporation 19
Ashland Coal, Inc. 19
BP Coal (USA) Inc. 20
The Bright Coal Group 20
Centralia Coal Sales Company 21
Coal Rep International 21
Coastal Coal Sales, Inc. 22
Consolidation Coal Company 22
Cyprus Coal Company 23
Farrell-Cooper Mining Company 24
Foreston Coal Corporation 24
Imperial-Pacific Investments, Incorporated 25
Ingram Coal Company 25
K-Fuel Partnership 25
Kerr-McGee Coal Corporation 26
Maran Coal Corporation 27
Mobil Coal Producing Inc. 27
National Mines Corporation 28
NERCO Coal Corporation 28
Peabody Development Company 29
Pecten Coal International 29
Pittston Coal Export Corp. 30
Primary Coal, Inc. 30
Stinnes Coal Company, Inc. 31
Summers Fuel, Inc. 32
Total American Mining, Inc. 32
United Coal Company 33
Westmoreland Coal Company 33

Coal Mining 35

A. T. Massey Coal Company, Inc. 35
AMAX Coal Industries, Inc. 36
Andalex Resources, Inc. 36
Anker Energy Corporation 37
Arch Coal Sales Company, Inc. 37
ARCO Coal Company 38
Arctic Slope Regional Corporation 38
Ashland Coal, Inc. 39
Berwind Coal Sales Co. 39
BP Coal (USA) Inc. 40
The Bright Coal Group 40
Buckeye-Industrial Mining Co. 41
Buffalo Coal Company 41
Cannelton Sales Company 42
CLI Corporation 42
Coal *Extraction and Utilization* Research Center 43
Coal Rep International 44
Coastal Coal Sales, Inc. 44
Colowyo Coal Company 44
Consolidation Coal Company 45
Cordero Mining Co. 46
Cyprus Coal Company 46
Electric Fuels Corporation 47
Farrell-Cooper Mining Company 48
H. B. Zachry Company 48
Imperial-Pacific Investments, Incorporated 49
Ingram Coal Company 49
Island Creek Corporation 50
Jim Walter Resources, Inc. 51
Kerr-McGee Coal Corporation 51
Mingo Logan Coal Company 52
Mobil Coal Producing Inc. 53
National Mines Corporation 53
NERCO Coal Corporation 54
Oglebay Norton Company 54
P&N Coal Company 55
Pacific Coast Coal Co., Inc. 55
Pyro Mining Company 56
REICHdrill 56
Stone & Webster Engineering Corporation 57
Sun Coal Company 58
Total American Mining, Inc. 58
United Coal Company 59
Westmoreland Coal Company 59
Zeigler Coal Company 60

Advanced Utilization 61

Acurex Corporation 61
AEP Energy Services, Inc. 62
AFT, Inc. 62
ARCTECH, Inc. 63
Arthur D. Little, Inc. 63
ASEA Babcock 64
Atlantic Research Corporation 64
Babcock & Wilcox 65
Bechtel Enterprises 65
CLI Corporation 66
Coal Quality Development Center 66
Combustion Power Company, Inc. 67
Consolidation Coal Company 67
Electric Fuels Corporation 68
Ellison Consultants 69
Energotechnology Corporation 69
Energy and Environmental Research Corporation 70
Foster Wheeler Corporation 70
Honeywell Incorporated 71
K-Fuel Partnership 72
Lafarge Corporation 73
MSE, Inc. 73
The M.W. Kellogg Company 74
Otisca Industries, Ltd. 75
PAR Enterprises, Inc. 75
Pedco, Incorporated 76
Pyropower Corporation 76
Radian Corporation 77
Riley Stoker Corporation 77
Schmidt Associates, Inc. 78
Stone & Webster Engineering Corporation 79
Texaco Development Corporation 79
TRW Combustion Business Unit 80
Ultrasystems Engineers and Constructors Inc. 81
Universal Energy International, Inc. 81
Western Energy Company 82
Williams Technologies, Inc. 82
Xcel Group, Inc. 83

Architecture/Engineering 84

Acurex Corporation 84
AEP Energy Services, Inc. 85
B. L. Montague Company, Inc. 85
Baker/TSA, Inc. 86
Black & Veatch, Engineers-Architects 86
Brown and Root, Inc. 87
Burns & McDonnell 88
Chas. T. Main, Inc. 88
CLI Corporation 89
Dorgan Associates, Inc. 89
Energy Systems Associates 90
Fluor Daniel 90
Foster Wheeler Corporation 91
GAI Consultants 92
Gilbert/Commonwealth, Inc. 93
Harris Group Inc. 94
Henkels & McCoy, Inc. 94
Howard Needles Tammen & Bergendoff 95
ICF Kaiser Engineers 96
John T. Boyd Company 96
Lane Engineering, Inc. 97
MSE, Inc. 97
The M.W. Kellogg Company 98
NUS Corporation 99
Parsons Brinckerhoff Quade & Douglas, Inc. 99
Quad Three Group, Inc. 100
Schmidt Associates, Inc. 100
SSR Engineers, Inc. 101
Stone & Webster Engineering Corporation 101
Tippett & Gee, Inc. 102
Ultrasystems Engineers and Constructors Inc. 102
United Engineers & Constructors Inc. 103
Willbros USA, Inc. 104
Williams Technologies, Inc. 104
Xcel Group, Inc. 105
ZBA, Inc. 105

Boiler Equipment 106

Abresist Corporation 106
Acurex Corporation 107
Allegheny Boiler Tube & Mfg. Co. 108
Allen-Bradley Company 108
Aptech Engineering Services, Inc. 109
Babcock & Wilcox 109
Combustion Power Company, Inc. 110
Compton Metals 110
Conco Systems, Inc. 111
Control Components Inc. 111
Diamond Power Specialty Company 112
FluiDyne Engineering Corporation 113
Foster Wheeler Corporation 113
Fuel Tech 114
Henry Vogt Machine Co., Inc. 114
Honeywell Incorporated 115
Kennedy Van Saun Corporation 115
Kunkle Valve Division 116
Peabody Engineering Corp. 116
Pyropower Corporation 117
Riley Stoker Corporation 117
Schmidt Associates, Inc. 118
Sheppard T. Powell Associates 118
Spire Corporation 119
TRW Combustion Business Unit 119
Zurn Industries, Inc. 120

Emissions Control and Waste Disposal Systems 121

AFT, Inc. 121
Agglite Corporation 122
Babcock & Wilcox 122
Baker/TSA, Inc. 123
Charwill, Inc. 123
Ellison Consultants 124
Energy and Environmental Research Corporation 124
Energy Systems Associates 125
The ERM Group 125
GAI Consultants 126
GeoResearch, Inc. 127
Graver Water International 127
JTM Industries, Inc. 128
Monex Resources 129
The M.W. Kellogg Company 130
Passamaquoddy Technology 131
Radian Corporation 131
Technology & Management Services, Inc. 132
Texaco Development Corporation 132
United Industries Corporation 133
Wahlco, Inc. 134

Facilities Construction 135

Acurex Corporation 135
Allegheny Boiler Tube & Mfg. Co. 136
Braun Engineering Associates, P.C. 136
Brown and Root, Inc. 137
CLI Corporation 137
Dominion Energy 138
Energy Systems Associates 138
Foster Wheeler Corporation 139
H. B. Zachry Company 140
Harris Group Inc. 141
Henkels & McCoy, Inc. 141
ICF Kaiser Engineers 142
Interstate Equipment Corporation 143
K-Fuel Partnership 143
Mountain States Mineral Enterprises, Inc. 144
The M.W. Kellogg Company 145
Oglebay Norton Company 146
Porta-Kamp Houston 146
Pyropower Corporation 147
Qualtec, Inc. 147
Riley Stoker Corporation 148
Schmidt Associates, Inc. 148
Ultrasystems Engineers and Constructors Inc. 149
United Engineers & Constructors Inc. 150
Welded Construction Company 150
Willbros USA, Inc. 151

Mining Equipment 152

AFT, Inc. 152
B. L. Montague Company, Inc. 152
Baker Hughes Mining Tools, Inc. 153
The Bowdil Company 154
Bucyrus-Erie Company 155
EIMCO Coal Machinery Inc. 155
ESCO Corporation 156
Goodman Equipment Corporation 157
Harnischfeger Corporation 158
Harris Group Inc. 159
Interstate Equipment Corporation 159
Jeffrey Division-Dresser Industries Inc. 160
Jervis B. Webb Company 161
John Fabick Tractor Company 161
Kennedy Van Saun Corporation 162
Komatsu Dresser Co. 163
Marathon Letourneau Company 163
McNally Systems, Inc. 164
Mountain States Mineral Enterprises, Inc. 164
Peabody ABC Corporation 165
REICHdrill 165
T.J. Gundlach Machine Company 166
Terra Technology Corporation 167
United Industries Corporation 167
WEMCO 168

Power Generation Systems 169

Aptech Engineering Services, Inc. 169
Braun Engineering Associates, P.C. 170
Control Components Inc. 170
Coppus Engineering Corporation 171
General Electric 171
Indeck Energy Services, Inc. 172
Quad Three Group, Inc. 172
SSR Engineers, Inc. 173
Steam Turbine Alternative Resources 173

Technical Publications 174

American Society for Testing and Materials 174
Fieldston Company, Inc. 175

Transport Equipment 176

Black & Veatch, Engineers-Architects 176
Goodman Equipment Corporation 177
Interstate Equipment Corporation 178
Jervis B. Webb Company 178
Marathon Letourneau Company 179
McNally Systems, Inc. 180
Polyken Technologies 180
Willbros USA, Inc. 181

Coal Transport 183

Bessemer & Lake Erie Railroad Co. 183
The Bright Coal Group 184
Burlington Northern Railroad 184

Chicago and North Western 185
Consolidation Coal Company 185
CSX Transportation, Inc. 186
Electric Fuels Corporation 186
Farrell-Cooper Mining Company 187
Goodman Equipment Corporation 188
Imperial-Pacific Investments, Incorporated 188
Interstate Equipment Corporation 189
Island Creek Corporation 189
John S. Connor, Inc. 190
Kaiser International Corporation 191
M.G. Maher & Company, Inc. 191
Mobil Coal Producing Inc. 192
NERCO Coal Corporation 192
Oglebay Norton Company 193
Port of Long Beach 193
Southern Pacific Transportation Company 194
Stinnes Coal Company, Inc. 194
Stone & Webster Engineering Corporation 195
Total American Mining, Inc. 196
Union Pacific Railroad Company 196
Utah Railway Company 197
Utility Fuels, Inc. 197
Welded Construction Company 198
Williams Technologies, Inc. 198

Facilities Operations 199

Acurex Corporation 199
Braun Engineering Associates, P.C. 200
Conco Systems, Inc. 200
Consolidation Coal Company 201
Dominion Energy 202
Electric Fuels Corporation 202
Eneract Management Services, Inc. 203
Foster Wheeler Corporation 204
Fuel Tech 204
General Physics Corporation 205
Gould Energy 206
H. B. Zachry Company 206
Harris Group Inc. 207
Indeck Energy Services, Inc. 207
Kaiser International Corporation 208
MSE, Inc. 208
The M.W. Kellogg Company 209
National Mines Corporation 210
NUS Corporation 210
Oglebay Norton Company 211
Pyropower Corporation 211
Qualtec, Inc. 212
Resource Technical Services 212
Sheppard T. Powell Associates 213
Ultrasystems Engineers and Constructors Inc. 213
United Engineers & Constructors Inc. 214
Utility Fuels, Inc. 215
Xcel Group, Inc. 215

Freight Forwarders 216

Anchor International 216
Gunther George Schmid Associates, Inc. 216
International Freight Services, Inc. 217
The Irwin Brown Company 217
J. W. Hampton Jr. & Co., Inc. 217
John S. Connor, Inc. 218
M.G. Maher & Company, Inc. 219
NEDRAC, Inc. 219
Radix Group International 220
W.R. Zanes & Co. of Louisiana, Inc. 220

Technical Consultants 221

AEP Energy Services, Inc. 221
Alabama Coal Association 221
Applied Management Sciences, Inc. 222
Aptech Engineering Services, Inc. 223
Arthur D. Little, Inc. 223
Baker/TSA, Inc. 224
Brown and Root, Inc. 224
Challenge Engineering Consultants, Inc. 225
Chas. T. Main, Inc. 226
Chatterjee and Associates, Inc. 226
Coal *Extraction and Utilization* Research Center 227
Coal Industry Consultants, Inc. 228
Coal Quality Development Center 228
Coal Technology Corporation 229
Conco Systems, Inc. 229
Consolidation Coal Company 230
Dames & Moore 231
Dorgan Associates, Inc. 232
East-West Center 232
Ellison Consultants 233
Energotechnology Corporation 233
Energy and Environmental Research Corporation 234
The ERM Group 234
Fieldston Company, Inc. 235
Fluor Daniel 236
GAI Consultants 236
General Physics Corporation 237
GeoResearch, Inc. 238
Gilbert/Commonwealth, Inc. 238
Gould Energy 239
Indeck Energy Services, Inc. 239
John T. Boyd Company 240
JTM Industries, Inc. 240
Lane Engineering, Inc. 241
Mobil Coal Producing Inc. 241
Mountain States Mineral Enterprises, Inc. 242
MSE, Inc. 242
The M.W. Kellogg Company 243
PAR Enterprises, Inc. 244
Qualtec, Inc. 244
Resource Technical Services 245
SFA Pacific, Inc. 246
SSR Engineers, Inc. 246
Stone & Webster Management Consultants 247

Technology & Management Services, Inc. 248
United Industries Corporation 248
Vernex Research Corporation 249
Western Research Institute 249
Xcel Group, Inc. 250

Financing and Resource Packaging 251

Bechtel Enterprises 251
Citizens Fidelity Energy Company 252
Dominion Energy 252
Fluor Daniel 253
Foster Wheeler Corporation 253
Goodwin & Soble Attorneys at Law 254
Indeck Energy Services, Inc. 255
Pyropower Corporation 255
Stinnes Coal Company, Inc. 256
Technology & Management Services, Inc. 257

UNITED STATES
DEPARTMENT OF ENERGY
WASHINGTON, D.C. 20585

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE. $300

FE-4

