



philadelphia



MUELLER
Record

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About the Cover:

The symbol of Philadelphia '76 Inc., the official Bicentennial Committee for the cradle city, is topped off with a gas flame to symbolize the important role Philadelphia Gas Works has played in the development of the city that was the birthplace of our nation.

In This Bicentennial Year...



Story Material Submitted by E.C. (Ed) Fenstad,
Mueller Co. Sales Representative, Philadelphia.



Gas Lamps still in use at The Poor Richard Club.

Philadelphia Gas Works Has Served Many Historic Sites in the Past 140 Years.

As the nation celebrates its 200th birthday, it is an opportune time for the Philadelphia Gas Works to reflect upon the role of the gas industry in the growth of the sage city and the nation.

In a city where the past is so much a part of the present, the Philadelphia Gas Works preserves a bridge to that past through its service to many of the city's most historic sites. The gas lamps at Independence Hall, one of the nation's most historic buildings, are fueled by PGW. And in tiny Elfreth's Alley, the oldest continuously residential street in America, PGW services nearly 30 homes.

When the idea of gas service to Philadelphia was first considered, Baltimore, Boston, and New York were already ten to 25 years ahead of Philadelphia in introducing gas illumination. And when plans began in 1833 to construct a gas plant, opposition by conservative citizens was intense. People were afraid that even their water would be adversely affected by this new "inexpedient, offensive. . .mode of lighting."

Because of this fear, many alternative schemes for early 19th Century lighting in Philadelphia were investigated; one such alternative proposed to light the streets of the entire city from one tower 300 feet high.

The major objection to the use of gas for lighting purposes included the fear of competition. The oil business had everything to lose. Oil dealers met this threat to their monopoly by lowering the price of oil used in public lamps below the market price of oil for other uses.

However, the novelty of the idea of gas use won out and in 1834 the city council dispatched S.V. Merrick, an engineer, to Europe to study gas illumination. As a result of Merrick's report, later that year the city began construction of a gas works on a property on the east bank of the Schuylkill River at 23rd and Market

EDITOR'S NOTE: ALL PHOTOS FOR THIS ARTICLE WERE PROVIDED BY PHILADELPHIA GAS WORKS NEWS.

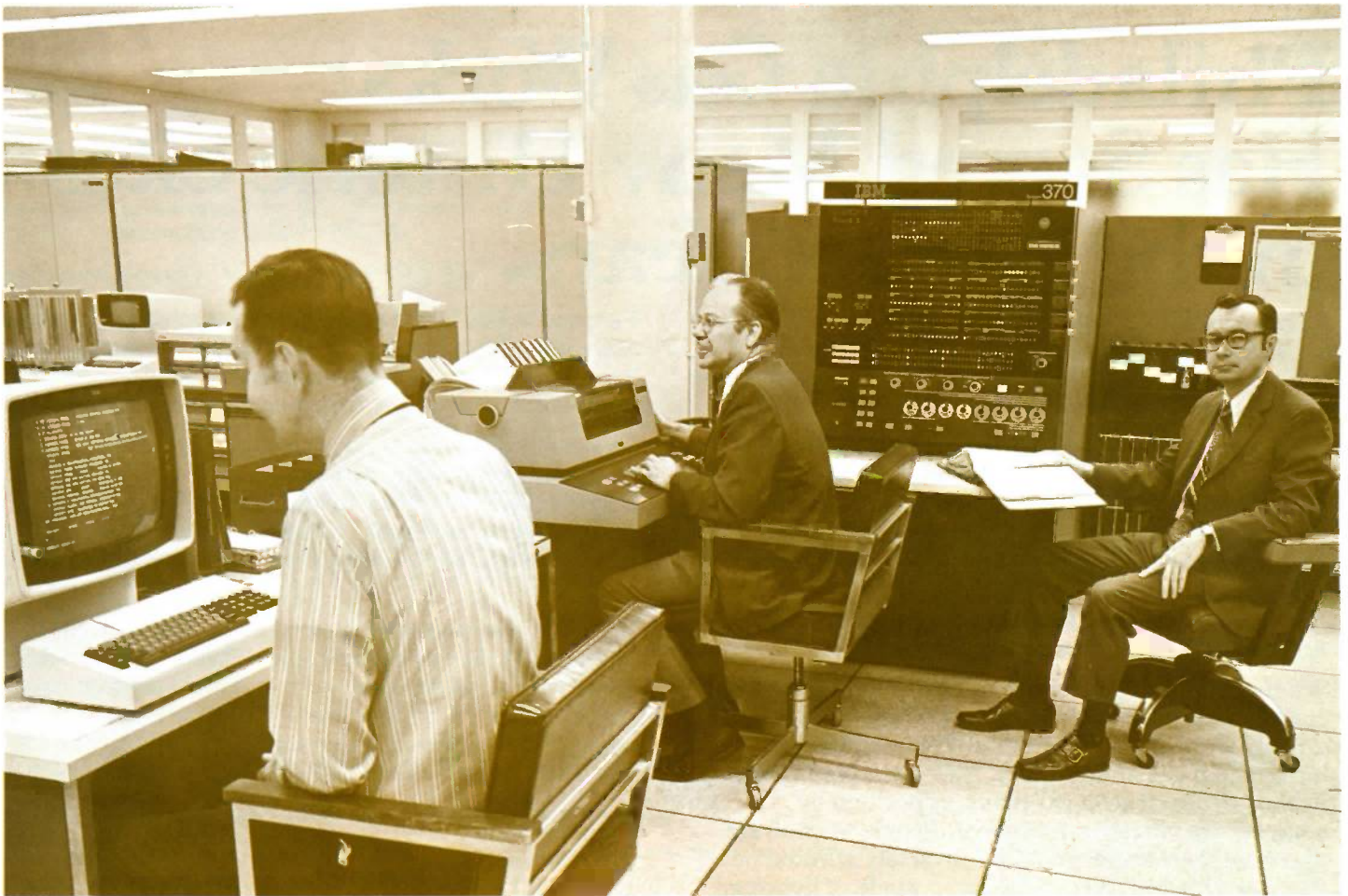


PGW vehicles equipped with special flame ionization probes patrol city streets checking possible leaks.

A group of school children view the Liberty Bell in its old location at Independence Hall. The Liberty Bell is now housed in a special pavilion.



Multi-programmed computer system that will alter many standard office procedures.



Streets. The manufacture of gas actually was initiated on February 8, 1836 and two days later 46 lamps were lit on Second Street from Vine to South. In the year that service opened to Philadelphians, the price of gas was higher than it is today. The 1975 cost for one thousand cubic feet of gas averaged about two dollars as compared with the 1836 rate of \$3.50.

Although it was originally used for lighting, gas gained popularity as a cooking agent in the 1850's. In 1854 a new plant, the Point Breeze Works, now Passyunk Plant, began producing gas for the city. That year, nine small companies merged with the city as Philadelphia's Act of Consolidation sought to increase gas service to its customers. Around the turn of the century, the strain of delivering more and more gas became acute and the city turned to the UGI, a privately-owned corporation, for management. Since January 1, 1973, the city-owned Philadelphia Gas Works has been managed by the Philadelphia Facilities Management Corporation.

The first 30 years of private management were very critical to the evolution of the gas industry. The demand for gas service gradually continued to rise and a nationwide conversion to gas was hastened by a coal strike in 1902. Sales of gas ranges, being pioneered in Philadelphia, mounted to an astounding figure of 500 per day during the strike. The day of the coal stove was doomed.

The succession of gas over coal was foreshadowed by the advent of the electric light. Fortunately, the timely appearance of the Welsbach burner helped to prolong the lighting service rendered by gas for another 30 years. Developed by UGI in Philadelphia, the burner allowed gas lights to give off four times as much light with only 60% of the gas required by earlier open flame burners. The gas industry across the nation might have collapsed after the premiere of the electric light, if the Welsbach mantel had not given the industry time to concentrate its activity into more prosperous fields.

Over the years, as the energy needs of Philadelphians have changed, the city's gas works has expanded to meet these needs by encompassing many new areas of endeavor which benefit its customers. The gas industry in 1976 has progressed a long way from its first success in lighting 46 lamps on Second Street. Its expansion into a modern industrial giant has been shaped by much foresight and technological innovation.

Until 1950 PGW distributed 530 Btu manufactured gas. During that year, appliances were converted to 650 Btu gas. In 1963 appliances were again converted for 1,000 Btu natural gas operation.

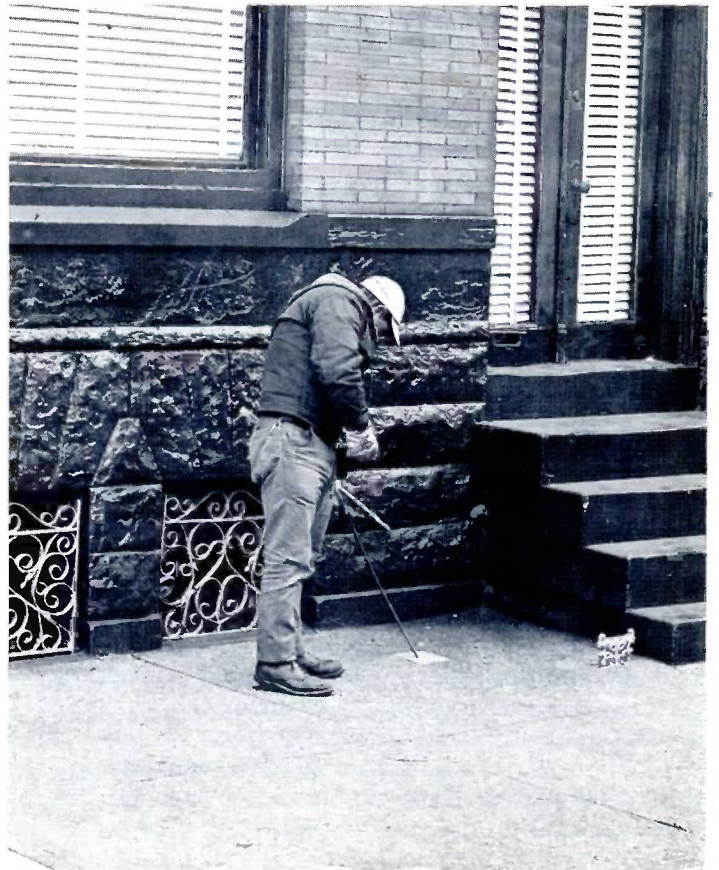
Today, the Philadelphia Gas Works provides services to about 550,000 customers and heats the homes of 395,000 of these Philadelphians. PGW's Customer Service Department's highly trained servicemen provide prompt and efficient appliance service 24 hours a day, every day of the year, from a fleet of radio-equipped vehicles.

In order to satisfy the supply needs of its customers



Christ Church where George Washington, Benjamin Franklin and Betsy Ross worshipped.

One of PGW's Leak Survey Crew which works almost year around on foot checking for gas leaks.





Memorial Hall, located in West Fairmont Park, was built for the 1876 Centennial Exposition. It was here that a 50,000 pound birthday cake, donated by Sara Lee, Inc., was cut during the Bicentennial Celebration.



Philadelphia City fire-fighters witness a demonstration of procedures to follow for controlling the accidental escape of gas, being put on by PGW personnel.

during the winter months, PGW has constructed and put into service the largest distribution company owned and operated LNG storage facility in the country with a capacity of over four billion cubic feet gas equivalent. This project earned PGW an "Outstanding Engineering Project Award" during Engineering Week in the Delaware Valley in February 1975. The plant has the capacity to liquefy 20,000 Mcf per day. PGW's total vaporization capacity is more than 600,000 Mcf per day. PGW is also capable of producing approximately 60,000 Mcf per day of high Btu oil gas and vaporized LPG.

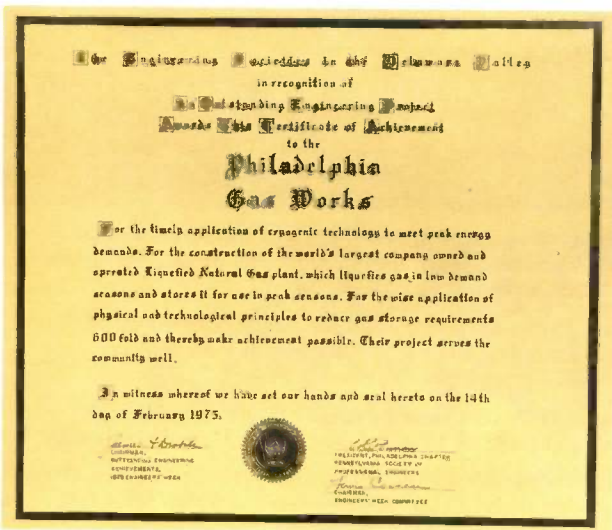
PGW maintains the integrity of its distribution system, which includes about 3,000 miles of mains and 512,000 services, through an aggressive preventive maintenance program. Four two-man crews on foot operate almost year around to survey the maze of main and services beneath Philadelphia's streets with combustible gas indicating instruments. In addition, during the winter months, the Distribution Department supplements these surveys with leak detection vehicles equipped with four special flame ionization probes. These probes, which can sense the presence of as little as ten parts per million of gas in the atmosphere, are easily attached to the front of the

detection vehicle. The leak detection vehicles cruise Philadelphia's streets from 10 p.m. to 6:30 a.m. to avoid interference with normal traffic patterns since they travel at slow speeds for greatest effectiveness.

During this Bicentennial Year, these vehicles are scheduled from midnight until 8 a.m. on a regular basis to survey the streets affected by special Bicentennial activities.

Five inspectors in radio-equipped vehicles respond to notification from excavators, including other utilities, who collectively make thousands of openings in the streets and sidewalks of Philadelphia every year. Accurate records of main and service locations enable these inspectors to mark the location of gas distribution facilities, thus avoiding damage to these structures.

PGW also conducts a Safety Training School for the safety instruction of its employees. In addition, the company recently completed training sessions attended by 2,000 members of the Philadelphia Fire Department. The sessions familiarized the firemen with PGW safety operations and what procedure to follow until PGW personnel arrive on the scene of an emergency involving gas facilities. The training



LNG Storage Facility at Richmond Plant. . . won "Outstanding Engineering Project Award" in 1975.

program is just part of PGW's concern for the safety of its customers and the Philadelphia community.

The large population and heavy traffic of historic Downtown Philadelphia pose special maintenance problems to the 540 employees of the Distribution Department; in these Downtown areas, routine repair work is scheduled in the evening or on weekends to avoid interference with pedestrian and vehicular traffic. On major replacement projects PGW has scheduled personnel to start early Saturday morning, then work around the clock up until 8 a.m. the following Monday, if necessary, to finish and repave the job before the flow of heavy weekday traffic begins again on Monday morning. With this intensive schedule, PGW crews have been able to replace up to one city block of main (500 feet) in one weekend. The skills of these "invisible" maintenance crews will be of crucial importance when Philadelphia opens its doors to some 20 million visitors this year.

The company's operations in the Bicentennial Year extend far beyond supplying its customers with 75 billion cubic feet of gas per year. PGW's ongoing effort is to streamline its operations to provide more efficient service to its customers. For example, all of PGW's customer accounts, all appliance service

orders and records, the payroll for PGW's 2,670 employees, and numerous Distribution Department records flow through a huge multi-phase computer unit located at PGW's Montgomery Station. When a customer telephones PGW for service or to make an inquiry about his or her bill, PGW's Telephone Service representative has complete information on this customer's account available in less than three seconds via a video terminal. New information, service requests, turn-on and shut-off orders, can be entered into the computer's memory discs from the keyboard on any one of the 63 video terminal positions in PGW's Customer Relations Department.

Philadelphia city officials and leaders have planned for maximum utilization of the city's parking, eating, and sleeping space for an overwhelming influx of 169,000 pilgrims a day. As Philadelphians host this landmark event, the Philadelphia Gas Works will be doing its best to insure the success of the Bicentennial by providing the same high quality gas service to the city as it has in the past. The Philadelphia Gas Works can take pride in its role as both witness and participant in the growth of this great country 365 days a year through its 140 years of dependable and uninterrupted service to Philadelphians.

Bicentennial Philadelphia in 1976.

Visitors to Philadelphia in the Bicentennial year will have a world of entertaining and educational experiences to sample.

Once the capital of Revolutionary America and the birthplace of the nation in 1776, Philadelphia will be a showcase of our historic past. Philadelphia '76, Inc., the official Bicentennial committee for the cradle city, will be sponsoring a variety of special outdoor events in the city from April to October '76.

This program promises to be the largest festival of American history and culture anywhere during the Bicentennial year. For information on accommodations or events you can call this toll-free number—800/228-1776. If you're planning to visit Philadelphia, be sure to see as many of the following historic sites as possible.

Independence National Historical Park—Independence Mall, 5th & Chestnut Sts. "The most historic square mile in America." Park and mall area.

Liberty Bell Pavilion—Independence Mall. Home of the Liberty Bell, the nation's most meaningful symbol of independence.

Independence Hall—Independence Mall. Where the Second Continental Congress met; Declaration of Independence was adopted; Constitution was written.

Visitors Center—3rd & Chestnut Sts. Two theaters; film on early American history. City information and tours.

Carpenters' Hall—320 Chestnut St. Site of Continental Congress in 1774. Exhibits of early tools and original furniture.

The First Bank of the U.S.—3rd St., S. of Chestnut St. Oldest bank building in nation. Restored as museum of Executive Branch.

Phila. Maritime Museum—321 Chestnut St. Maritime treasures in a modern museum.

Franklin Court—Bet. 3rd & 4th Sts., Market & Chestnut Sts. Reconstruction of five houses owned by Franklin, plus the skeletal structure of his home. Underground museum, film on Franklin's life, printing press, post office.

New Hall—Chestnut St., bet. 3rd & 4th Sts. Museum of U.S. Marine Corps history.

Thaddeum Kosciuszko House—3rd & 4th Sts. Home of the Polish patriot who fought in American Revolution.

Second Bank of the U.S.—420 Chestnut St. Restored as gallery of Revolutionary War era portraits.

Pemberton House—4th & Chestnut Sts. Army and Navy museum.

Arch St. Friends Meeting House—4th & Arch Sts. Built in 1804; still used by Quakers.

Hill-Physick-Keith House—321 S. 4th St. Built in 1786. Restored with fine examples of Federal furniture. Early 19th century style walled garden.

Pennsylvania Horticultural Society—325 Walnut St. Oldest horticultural organization in U.S. Features 18th century garden.

The Powel House—244 S. 3rd St. Home of Samuel Powel, mayor of Philadelphia in 1776.

Old City Hall—5th & Chestnut Sts., East of Independence Hall. First home of U.S. Supreme Court. Exhibits and slides; illustrates 18th century life.

Franklin's Grave—Christ Church Burial Ground. 5th & Arch Sts. Burial site of Ben Franklin.

Congress Hall—6th & Chestnut Sts., West of Independence Hall. Where U.S. Congress met 1790-1800. Authentic restoration.

Athenaeum of Philadelphia—219 S. 6th St., on Washington Square. Open to public for first time in 160 years. Newly restored Victorian library and museum specializes in 19th century social and cultural history.

Living History Center—6th & Race Sts. New major Bicentennial attraction. Large screen film and exhibits on 200 years of American life and history.

Atwater Kent Museum—15 S. 7th St. Exhibits of Philadelphia's social, cultural and economic history.

Walnut St. Theater—9th & Walnut Sts. Oldest theater in U.S. Bicentennial matinees, dancing, film, drama, chamber music. Museum. Tours by appointment.

Pennsylvania Academy of the Fine Arts—Broad & Cherry Sts. Nation's oldest art school and museum. Incomparable collection of American masterpieces.

Academy of Music—Broad & Locust Sts. Home of Philadelphia Orchestra. Oldest musical auditorium in U.S. still in use.

The Franklin Institute—20th & Parkway. Franklin National Memorial. Science playground for all ages: do-it-yourself exhibits, planetarium, science garden and lunchroom.

Philadelphia Museum of Art—26th & Parkway. One of country's finest art museums. Special Bicentennial Exhibition, "American Art: the Philadelphia Achievement."

Fairmount Park—Largest landscaped city park in the world. Special attraction tour of historic Fairmount Park Houses; international architecture.

Robin Hood Dell—Fairmount Park. 21 Bicentennial concerts from June 15 to July 29. Monday, Tuesday & Thursday evenings.

Philadelphia Zoo—Fairmount Park. Oldest zoo in America. Open all year, including famous Children's Zoo and Safari Monorail.

U.S.S. Olympia—Penn's Landing. Admiral Dewey's flagship at Battle of Manila Bay.

Elfreth's Alley—Bet. Arch & Race, Front & 2nd Sts. Nation's oldest continuously occupied residential street.

Old City Tavern—2nd & Walnut Sts. Reconstructed colonial tavern; colonial dishes served daily.

Fire Museum—149 N. 2nd St. Old firehouse with early equipment, uniforms, mementos.

A Man Full of Trouble Tavern—127 Spruce St. Only 19th century tavern still standing in Philadelphia; restored as a museum.

Betsy Ross House—239 Arch St. Tiny colonial house, restored and furnished commemorates birth of "Old Glory."

Christ Church—2nd St. above Market St. Most historic of Philadelphia's colonial churches. Where Franklin and Washington worshipped.

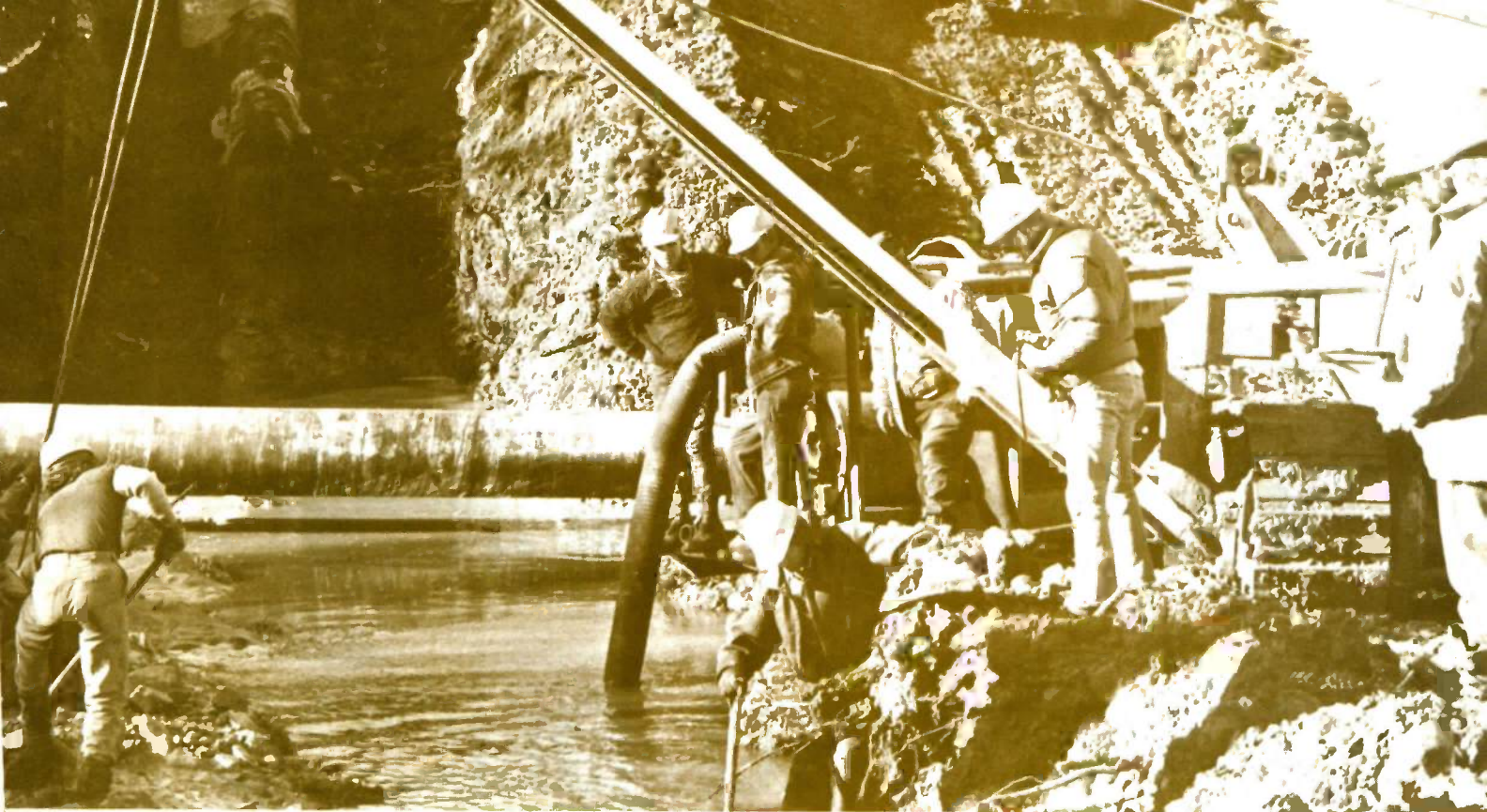
Gloria Dei (Old Swedes) Church—Swanson & Christian Sts. Oldest church in Philadelphia. Dedicated in 1700.

Mummer's Museum—2nd & Washington Ave. Devoted to history of the Mummies—Philadelphia's New Year musical tradition.

Old Fort Mifflin—Fort Mifflin Rd. (near International Airport on Delaware River). Scene of Revolutionary battle. Militia musters and skirmishes in authentic Revolutionary War uniforms.

Germantown—Germantown Ave. Founded in 1683; site of famous Revolutionary battle; historic houses and museums.

Naval Base—South Broad St. Naval museum, marine barracks exhibit, U.S.S. Intrepid.



Mountain Fuel Keeps Its Promise

Story Material Submitted by W.A. (Walt) Arnett,
Mueller Co. Sales Representative, Salt Lake City, Utah.

When Utah's Governor Rampton turned the valve in the Utah foothill area between Coalville and Centerville last December, the race was over for Mountain Fuel Supply. They had achieved their important goal: Completion of the pipeline that would assure their customers uninterrupted natural gas service for the winter.

It became evident to Mountain Supply as early as 1973 that existing transmission lines from gas storage in eastern Utah and Wyoming to the populous Wasatch Front were strained to capacity. Early in 1973 the company notified the Utah Public Service Commission that without new pipeline, it might be necessary to curtail supplies to customers for the first time in the company's history.

Late in August 1975, Mountain Fuel received Federal Power Commission approval to construct the pipeline, and the race to complete it in time for winter demand began. Crews worked seven days a week to complete the line before heavy snows. At the height of construction, 175 men worked on the project. Helicopters ferried men and equipment over the high mountains to the construction sites. The pipeline reached a peak elevation of 8,700 feet at the highest point. Nine miles of the pipe were strung along the trench by helicopter in this high section of the pipeline. In all, 176,000 feet of pipe was laid in the 33.5 mile pipeline.

Mountain Fuel estimates that because of the official delays, and inflation, the pipeline cost between \$4.5 and \$5

million instead of the originally projected \$3.25 million. The company believes the effort and expense were worth it though. MFS President, B.Z. Kastler, stated that all of gas company's residential and commercial customers had an adequate supply of gas this past winter, thanks to the added 100,000 mcf per day capacity this pipeline is capable of supplying.

There is great satisfaction for MFS in this spring's re-seeding, leveling, and other finishing work on the pipeline's trail since they were able to meet their customers needs in such a dramatic way this year.

MFS serves a total of 313,762 customers with 300,519 of these in Utah and 13,243 in Wyoming.

Help break the chain
that binds!

Let's decontrol
wellhead prices
now!



If we can get Congress to decontrol
the wellhead price of new gas now, we'll get:

- more energy**
- which means
- more jobs**
- more housing**
- more and better new products**
- more impetus for our economy**

It's true. By decontrolling the wellhead price of new gas, we can achieve all of these things, and at a surprisingly low increase in cost.

More available gas (and it is there in known reserves) not only solves the energy crisis by taking pressure off of oil consumption, but helps industry to expand, increases housing starts, permits new product development and creates jobs in all of these areas.

Natural gas accounts for 1/3 of our nation's energy requirements. And 50% of our industrial economy runs on natural gas. So it is of the utmost importance that this nation provide the proper economic incentives for the development of new natural gas sources to keep our economy moving ahead.

BUT, because of the tight rein federal legislation holds on the wellhead price of new gas, no developer has the incentive to tap the over 600 trillion cubic feet of gas in our known reserves. If we don't start tapping them soon, we run the risk of sliding further into a recessive economy with its attendant disasters—rising unemployment, greater welfare costs, more factory closings and all the other deterrents to maintaining and advancing our standard of living.

We must decontrol now! It's later than Congress thinks!

Only the Federal Government, through Congress and the Federal Power Commission, has the power to solve this problem before it is too late. Already the shortage of natural gas has reached crisis proportions in many industrial areas, causing plant closings and unemployment. By the end of summer, we will be almost 30% short of the supplies we need

to keep our economy moving. Next winter, if it's a cold one, plants will close and homes will be cold—and the following year it will be even worse—unless Congress acts now! There is no valid reason other than politics for several hundred people in Washington to stand in the way of the progress and comfort of over 200 million Americans.

You can help

We urge you and all of your friends to write, wire, call or buttonhole your Congressman and tell him to get busy and repeal the control on wellhead prices of new gas. To help you do that, if you do not already have facts handy to tell them, we have prepared a booklet that lists the important Congressional committees who influence energy legislation, and their chairmen; statistics you can quote proving the necessity to increase gas availability for our economy; trade paper editors you can write to urge stronger editorial cooperation in the fight; a reprint of a series of talks, given before a series of audiences—including some Congressional committees, by C. J. Gauthier, Chairman of Northern Illinois Gas Company; and a special button for your lapel which bears the message **DECONTROL GAS ENERGY**. Let us send you this booklet and button right away. Remember, even if your Congressman agrees with the industry spokesmen, he isn't going to vote to decontrol until he hears from YOU—the voter. The cost is small (the fact book tells the story), the need is great and time is short. Do it **NOW**. Return the coupon below for a prompt reply.

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YES! I want to help our economy move ahead! Please send your free booklet, "Decontrol Gas Energy" and I'll do my part.



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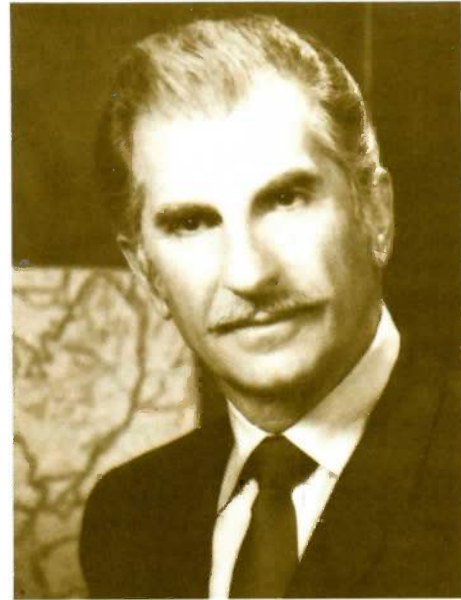
EDITOR'S NOTE:

Last August we ran a special ad (see P. 10 and 11) in many of the Gas Industries leading publications urging our readers to write their Congressmen, members of the administration and the press, asking for favorable support and action on decontrol of wellhead prices of new gas.

One of the strongest proponents for Decontrol is Michel T. Halbouty, of Houston, Texas, a well known Consulting Geologist, Petroleum Engineer and Independent Producer and Operator.

The speech he gave at the AGA 57th Annual Meeting in Houston last October is hereby printed in its entirety. We certainly agree with his message.

As we go to press some action toward deregulation has been taken, but is now in the hands of the court - what the result will be is, as of now, a matter of conjecture.



“It could have been different!”

by
Michel T. Halbouty

I appreciate the honor and opportunity of addressing this distinguished Association. In this presentation I hope to contribute constructive, positive thoughts on the horrendous natural gas supply mess in which this nation is involved.

The title of my address is “It Could Have Been Different!” and I will attempt to show how different it really could have been!

My entire career has been spent exploring for oil and gas. I am fortunate because I am exactly what I wanted to be -- an earth scientist and engineer who has practiced as an independent oil and gas explorationist and producer.

I would like to think that in some small way I have helped this great nation develop the most efficient, the most economic oil and gas production, pipeline and distribution system in the world. The availability of these hydrocarbons enabled our industrial potential and free enterprise system to astound the world with our standard of living, our industrial productive capacity, and our financial strength.

Now, I find that Congressmen, federal economists, and other federal bureaucrats, plus some segments of the media, seemingly want to tear down, rip asunder, and punish the oil and gas companies, large and small, that provided the energy foundation on which this country built itself into a nation once envied by all.

Even now, after recent price increases, U.S. consumers pay less than half as much for energy from gas and oil, including secondary energy made from them, than any major nation in the world.

No other nation has a network of gas pipelines and connected distribution systems even half the sizes of ours--

No other nation has so many petroleum products so readily and economically available as we do--

No other country in history has utilized its naturally occurring oil and gas resource base for the benefit of the full spectrum of its population as we have.

We were able to accomplish this because our oil and gas industries were formed and developed within an environment characterized by hard, tough competition which fits and works in

a free economy. The industry attracted the free-spirited individualists, the risk takers that, unfortunately, are largely missing from the scene today. And, wildcatting and creating new-field development and techniques were adventures that challenged and excited the souls of men.

Now, bureaucracy and an uninformed public have swung the desires the other way. The goals for individuals have been rearranged. Security is pursued, without regard for achievement, stifling controls are rampant in every sector of our economy, individuality is smothered and stereotyped, and the profit incentive is scorned in favor of will-of-the-wisp sociological scenarios.

Therefore, just when we need to open up the oil and gas businesses, stimulate them with incentives that will again draw the free thinking individualists, and risk-takers, and unchain our oil and gas companies so they can rebuild domestic oil and gas supplies, some of the nation's leaders, supported by the most ineffective Congress in our history, seem determined to do just the opposite.

Even some of you gas distribution and pipeline company leaders at one time seemed determined to ignore the warnings both major and independent producers have been sounding for more than 20 years.

Some of you--certainly not all--endorsed many of the scurrilous attacks on producers mounted by publicity hungry political hacks and other oil and gas industry dilettantes and gadflies.

Some of you aligned yourselves with the inept regulators on federal and state levels who wanted to bury the free enterprise system in favor of some pseudo-sophisticated form of democratic socialism, as they ruled and ordered, not to mention ranted and raved, about all the natural gas there was to be easily located.

Perhaps there were those among you who drank the poisoned political and regulatory philosophy which said that the only way in which the public interest could be served was through the artificial, below true market value, wellhead prices for natural gas destined for interstate commerce.

On went the gas industry through the 50's and 60's secure, it



I think gas would have sought its own level through the free market and that a reasonable well-head price would have provided 20 years of full scale exploration and development instead of limited exploration.



thought, in the cocoon of surplus gas production and socialistic prices spun by regulatory policies which were completely asinine and destructively unrealistic.

It is now obvious to everyone that more than 20 years of wellhead price regulation based on utility rate-making theories carried the seeds of its own destruction, and assisted in the deplorable situation of your industry.

Any and all of you who transport natural gas interstate or are tied to interstate pipelines for gas supply are in trouble--with multiple mounting problems.

Gas consumers dependent upon interstate supply regulated by the Federal Power Commission face a very bleak outlook--perhaps even a serious and/or permanent breakdown of service within, say, the next few years. But those obtaining intrastate gas through the free enterprise, free market system are in a far better position to get the gas they need.

Of course, the politically-tuned Congress of the United States--a Congress that has not accomplished one thing--not one item--not one iota--to INCREASE the domestic supply of energy by even one barrel of oil or one cubic foot of gas--has completely ignored the supply dilemma and its thinking boils down to two paths which their proponents say will solve everything:

First, the Congressional experts want to handle the imbalance between interstate and intrastate gas supply by taking regulatory theories, which have failed to elicit the necessary exploration and drilling for 20 years, and extend them to the intrastate area. In short, they want to cure an illness by application of more destructive germs to a healthy portion of the body; or

Secondly, these same Congressional sages, want to nationalize the whole industry and let bureaucracy shoot seismic lines, drill wildcat wells, develop and produce all the petroleum it *might* find and to run the pipelines which bring oil and gas to the consumers.

As a producer, of course, I strongly oppose these destructive proposals. As far as the first one is concerned, not only would it lower potential income and thereby reduce incentive for exploration, but also because it would extend federal control of energy, probably beyond constitutional limits since the constitution must have left some authority for the states to exercise within their own boundaries.

The interstate transmission companies should not support the attempt to regulate gas in the State of Texas or any other State as this will create a divisive relationship between them and the producer which certainly would lead to less exploration and less availability of gas.

It is to the interest of the interstate pipelines to promote de-regulation of natural gas from the Federal government so that the free enterprise system will prevail and permit supply and demand to eventually reach their own levels. In this manner everyone benefits, the producer, the pipelines, the distributor and the consumer.

The orderly and effective gas operations which are conducted within the borders of producing states without price controls demonstrate that there is greater incentive to find more gas when there is such freedom--freedom for the producers to sell and freedom for the transmission companies to buy at realistic market prices.

Even today I have reason to believe there are some in this room who are promoting the elimination of free intrastate gas pricing, and, if this is true, you are inviting a repetition of the evils of control that have placed you in your current untenable position.

There is no question in my mind, and I believe, most sincerely, that if we producers had been successful in our attempts to eliminate producer price controls, you would have ample supplies of gas today. I doubt there would be \$2 gas in the intrastate market had that happened.

It is unfortunate that some of you vigorously opposed us in that fight. Your support might have turned the tide--then this nation would be much better off today!!

I think gas would have sought its own level through the free market and that a reasonable well-head price would have provided 20 years of full scale exploration and development instead of limited exploration.

It is because of this curtailed exploration, of course, that we are now in a natural gas crisis.

In Texas our gas supply is ample and there are few complaints of the price of up to \$2. It is that high because Texas and other producing states are underwriting all of the worthwhile onshore exploration in this country. What this has proven is that gas can be found to meet the need, if a return on investment is possible. Put Texas under interstate price regulation and our supply will also dry up.

An example of what intrastate pricing can accomplish, an independent, the Texas Pacific Oil Company, brought in the largest gas well in history last month in the Delaware Basin of West Texas at a depth of 13,500'. Its open flow potential was 4.3 billion cubic feet daily, meaning that its Railroad Commission allowable could be as high as 1 billion cubic feet daily.

This well would not have been possible had not intrastate prices prevailed.

All of the gas in this country hasn't been found yet. Proper incentives in a free market might more than double gas reserves and provide the sufficiency for at least another 25 or more years.

To bring about a respectable self-sufficiency what we need above all else is for the destructive forces of government to just leave us alone to explore and drill where we think the reserves are located.

A case in point, the Eastern Congressmen and state officials seem to want us to spend what it takes to find gas for them and sell it to them at below cost prices. They have sufficient oil and gas right off their shores and have refused to permit exploration.

They shout that they don't want the dirty wells, the dirty field workers, the dirty processing and storage facilities, and the dirty pollution that comes with petroleum exploration and development.

We know that the industry has cleaned up all these "dirty" items but those Easterners still get the attention of the media which in turn inflames their constituents by calling everything we do "dirty."

But those phony leaders deceive the consumers and the workers and others who suffer from a shortage of gas.

The cost of exploration and development of oil and gas comes high, wherever it is done. If the price is unrealistic, the gas will not come at all--at which point the government takes over

“ There is little doubt that increased prices for oil and gas would cause some more inflation. But the question is, what will be the results of failure to decontrol? ”

under nationalization. Then the people will be worse off. Yet, this is what those pied pipers of the people are advocating.

It is remarkable that those who are now doing everything their power to destroy the petroleum industry and the free enterprise system that goes with it, do not realize that “incentive” and “encouragement” are the two key-words for achieving the goal of self-sufficiency.

We can go all the way back to the early years after World War I for the simple proof of this statement.

At that time this nation was running out of oil just as the automobile was coming into its own. The price of oil reached all time highs, but still there was little incentive to drill because some in the industry and leading politicians preached that we had found all of the oil in this country and our reserves would be completely depleted in five years.

If such were true, the wildcatters surmised, there was no reason to risk their capital after a lost cause.

This situation caused the Congress to pass one of the most effective pieces of legislation ever enacted in the public interest, that sent wildcatters back into the field to search for and discover new and huge reserves of petroleum, which eliminated the dangers to our continued progress and prosperity. This law preserved the greatest standard of living in the history of man.

That law was the 27.5 percentage depletion provision of the Internal Revenue Code. It worked for many years until oil from overseas and surplus domestic gas flooded the country and again forced the price of oil down, which was the first step in gradually removing the independent oil finders from the picture.

Then, when we were again facing the end of the line in oil and gas supplies in this country, ignorant, self-serving politicians reduced the percentage provision at a time when they should have increased it. And recently, and even worse, Congress took steps to completely eliminate it.

Now comes a proposal to decontrol prices. And that same ineffective Congress with 75 new congressmen, about half of whom are dedicated to nationalization, ignores the real crisis and is blocking a wise and courageous president who is trying to solve the problem in the public interest.

Their specious argument is that decontrol will cause the highest and most unbearable inflation in the nation's history. There is little doubt that increased prices for oil and gas would cause some more inflation. But the question is, what will be the results of failure to decontrol?

The answer is that there will be even more inflation as domestic oil and gas supplies rapidly decline and dependence on foreign oil skyrockets. This has been clearly demonstrated in the quadrupling of prices in the 1973-1974 period.

These opponents of decontrol hint that the answer is a national oil entity which will operate more efficiently than the existing oil and gas companies and thereby bring down prices for the poor, bewildered customer.

Their plan calls for a federal petroleum company to be funded with billions at the start and with access to additional billions whenever they demand it. It will have free leases on federal lands, thereby denying the taxpayers the benefits of lease bonuses in the billions of dollars, plus the tremendous royalty payments which increase by the month.

The federal petroleum company will pay no taxes and will

make its own regulations and by innuendos and demagoguery prove to the people that it can operate cheaper than private industry.

Give our petroleum industry the same unshackled political package as a national company--that is, freedom from taxes, royalties, bonuses, controls, and regulations--plus billions of the taxpayer's dollars to provide itself with the tools and services--then add the outstanding world renowned know-how and efficiency it already has developed from over 118 years of experience--there is no question that all of this so-called “freedom package” would enable us to find enough oil and gas to almost give away.

The present oil, gas other energy companies, including your corporations, would become parts of a gigantic federal bureau. We would all go on the federal payroll. So would our employees. So would all of the service station owners and employees and the service, tool, and supply companies and the petrochemical and shipping and other allied companies.

There would be no stockholder dividends, or royalty payments. All minerals would become the property of the federal government, as in the rest of the world. Individual mineral property rights would be wiped out.

Executives and employees of all of these companies would be given the right to retain their jobs at federal pay scales provided they pass a test and sign a pledge of servitude without the right to ever complain in the future.

The professionals such as the engineers, geologists, geophysicists, researchers, attorneys, accountants, and others would become federal workers subject to assignment at the whim of political appointees, and would have the right to join only one organization--the federal employees union.

Of course, the federal petroleum company proponents say nothing about the taxpayer having to foot the expense of a federal company.

Neither is the taxpayer told nor does he know that the inefficiency and bungling of a national oil company would place the nation on total foreign dependence in less than 5 years.

Should the federal petroleum company become a reality, the next step would be nationalization of all other industries.

As I understand it, the scenario for this total federal take-over would run something like this:

Congress would pass a petroleum nationalization law based on the false effectiveness and efficiency of the federal petroleum company. That would mean the government would simply take over the existing oil companies, as Mexico, Venezuela, and other countries have done.

All trade associations would be abolished, such as the American Gas Association, American Petroleum Institute, Independent Natural Gas Association, Independent Petroleum Assistant of America, Mid-Continent Oil and Gas Association, and all of the others.

But that would be the starter. Soon all other industries and businesses would “enjoy” the same fate. The next step would be the big change--probably some form of fascism--but certainly full socialism would come first.

If you doubt that these plans are in the mill, it's just because you haven't been around Washington lately and listened to some of those warped egg-heads.



Earth scientists generally agree that a large natural gas potential exists in the United States, locked within such traps. There it will remain static and useless bringing no benefit to anyone on this earth until a rock bit drills into the gas bearing reservoir and the hydrocarbon can be produced at a price that makes the operator's investment and effort worthwhile.



The federal company would be free of taxes and regulations and the employees would be relieved of most of the personal freedoms they now enjoy, but they would be no more than serfs and forced to pay higher income and other taxes in order to pay for the inefficiency, blunders, and waste which usually accompanies government operations.

In the wiping out process most, if not all, of the large producing states, such as Texas, Louisiana, and Oklahoma would be bankrupted.

It is unfortunate that we all are victims of the same venomous tactics of those in the Congress, and among some segments of the media, who would solve the nation's natural gas supply problems by instigating more regulations, more government agencies producing only "barrels" of paperwork, and by approving and implementing the wang-brained theories and philosophies of anti-business professors and basket-case economists.

May I remind you that oil and gas exploration and development are scientifically and technically-based functions. Oil and gas discoveries result from the work of earth scientists coupled with risk capital. There will not be one additional barrel of oil or one cubic foot of gas developed from theory, studies, investigations, economic forecasts, Capitol Hill caccophony, computer printouts, or massive statistical exercises which try to explain how in the heck we got in the shape we are in.

Gas is a naturally occurring hydrocarbon found in traps well below the surface of the earth which is enclosed in porous and permeable strata in the proximity of source rock.

Earth scientists generally agree that a large natural gas potential exists in the United States, locked within such traps. There it will remain static and useless bringing no benefit to anyone on this earth until a rock bit drills into the gas bearing reservoir and the hydrocarbon can be produced at a price that makes the operator's investment and effort worthwhile.

Let's look at our gas resource base. Currently, your A.G.A. Committee on Natural Gas Reserves estimates proven recoverable U.S. natural gas reserves at approximately 237 trillion cubic feet. Qualified investigators estimate that these known reserves can be increased by an additional 180 trillion cubic feet with further development and extension of existing fields.

Then, equally valid estimates of undiscovered recoverable gas resources in the U.S.--including onshore and offshore out to the 200 meter isobath--indicate a range of between 322 and 655 trillion cubic feet. Expressed in terms of probabilities, the investigators say that there is a 95 percent chance that 322 trillion cubic feet of gas can be discovered in the U.S. and a 5 percent chance that the full 655 trillion can be struck.

Add them all together--proven resources, extensions to proven reserves, and undiscovered reserves--and the domestic natural gas resources base ranges from a minimum of 739 to a maximum of 1027 trillion cubic feet. The minimum figure represents about 33 year's supply at current consumption levels and the max figure gives you a net 44 years or so of supply.

Predictions of gas reserves is an imprecise exercise in any case and estimations of undiscovered recoverable reserves are very dicey. But, there is a consensus that we do have a reasonably adequate gas resource base to work with which could provide us

with sizeable proven reserves provided the government, that gave us Pearl Harbor, Social Welfare, Unemployment Compensation, the Federal Power Commission, and Watergate, does not prevent us from going out and exploring for and finding it.

I do know this--to find and develop those reserves we are going to have to drill more wells than in the past, because even as the total number of wells drilled in the United States is increasing, gas reserves developed per well are decreasing.

To illustrate, in 1967, there were about 3800 new natural gas wells drilled and new natural gas reserves added were approximately 6 billion cubic feet (Bcf) per well drilled. In 1973, some 6500 new gas wells were drilled, but new reserves added dropped to about 1.2 Bcf per well drilled.

A further decrease to approximately 0.5 Bcf per well drilled is predicted by an optimistic projection of the trend line out through 1979 if we continue to decrease our wildcatting activity.

Therefore, the U.S. is faced with a situation where an increasing number of wells will have to be drilled, each of which will find less and less gas--especially if we continue to exert our activities on field drilling rather than wildcat drilling. Let's face it--it is the wildcat drilling that turns up the important new petroleum reserves--not field drilling!

We could find large reserves in areas which have not yet been thoroughly explored, such as the eastern offshore, the Alaskan Gulf, the Alaskan North Slope, Lower Cook Inlet, the outer offshore areas in the Gulf of Mexico and California, and the onshore in the Western frontier states of Idaho, Nevada, Oregon and Washington.

More wildcat wells are going to have to be drilled just for the gas industry to stay even and maintain something like a 10 year reserves-to-production ratio. And, I am talking about a 200-300 percent increase of wildcat wells over those drilled in recent years.

I realize that over the long term it will probably take a mixture of the conventional and supplemental gas sources to keep your gas systems and this nation's economy strong and productive.

But, the Wee-Willie-Wet-Legs we have in Congress have stymied every effort to produce those sources and by doing so they put their personal political expediency ahead of the public welfare.

Such irresponsible congressional procedures accentuate the most serious problem of our government today, and that is--the lack and complete disregard of adequate and proper representation of and for the public interest.

Instead of passing legislation that will encourage the increase of the nation's gas supply---

from domestic drilling,---
from gasifying and liquefying domestic coal,---
from pipelining gas from the Arctic,---
from LNG imports and from making SNG from imported petroleum products,---

they go about their business of being first-class political hacks by giving the appearance to their constituents they are doing something about oil and gas, while at the same time through the media they make me and my associates, and you and your associates, look like rascals and thieves, and money-hungry, grabbing oil and gas barons.



The plain fact is that the Congress has done nothing about the nation's energy supply problems and it is afraid to tell the public that the days of cheap energy for any and all applications are over--those days are gone, they are finished and will never return!



The plain fact is that the Congress has done nothing about the nation's energy supply problems and it is afraid to tell the public that the days of cheap energy for any and all applications are over--those days are gone, they are finished and will never return!

It is unbelievable and beyond comprehension that the United States is the only industrialized nation in the world which has done everything in its power to eliminate incentives for domestic oil and gas exploration, development and production, and has stymied every move toward their supplementation from other energy sources.

In our industry we have problems we didn't invite and because of these problems the country has problems which are rebounds from ours--neither should have ever occurred!

Our industry is the life blood of this nation and as goes the industry so goes the nation. The industry is now in a mess and so is the nation caused by the inept, stupid, destructive actions of an inept, stupid, destructive Congress.

This situation reminds me of a statement made to the O'Mahoney Committee of the Senate about 20 years ago. The Committee was looking into the gas industry. The eminent Paul Kaiser of El Paso Natural was on the stand. He had been under questioning for some time and had made a tremendous impression with his typically salty replies.

Finally, when he was through, the Chairman asked him if he had any recommendations. Mr. Kaiser said, "No."

"What about legislation?" he was asked.

To this Mr. Kaiser made a classic rejoinder.

In effect, he said: "--Mr. Chairman, I am not in the legislating business. My business is acquiring gas reserves, finding a market for them, and delivering them to that market.

"Legislation, as I understand it, is your business. But let me make the observation that if this Congress fails to pass a bill to free the producer from unbearable and unreasonable price controls by the FPC, this country and its people are going to suffer a disastrous energy shortage some day.

"And if you fail to pass legislation, now, I would not want to be in your shoes when the public realizes what has happened and who is responsible."

Mr. Kaiser's prediction has come about and who is responsible?

Is it those who promoted excessive imports and kept the price of oil at a minimum?

Is it those who promoted and then failed to remedy the evil of artificial price controls on natural gas?

Is it those who have prevented the drilling of the wells offshore and the building of refineries and other facilities along the East Coast?

OR

Is it those two presidents who vetoed two gas bills which would have eliminated much of our current problems?

You take your choice of the responsibility of these mis-deeds!

One fact is certain: had oil and gas prices been permitted to reach realistic and reasonable levels in a free market, there would have been no wholesale waste in the extravagant use of petroleum and the decimation of the explorers for oil and gas. Industries such as coal, nuclear, and shale oil would have

had the proper incentives to research, develop and produce to supplement the gradual shortage of petroleum supplies over the years.

Then there would be no shortages of energy today and it would be far less expensive than what we are now experiencing.

Consequently, there would be no unreasonable and unmanageable economic inflation in this country.

Also, disastrous recessions with high unemployment would have been avoided.

There would have been no dependence on foreign oil and there would have been no OPEC embargo. In fact, there would have been no OPEC.

And the threat of socialism or facism would not be staring us in the face.

The question may be asked "What has happened to free enterprise?"--or that question may be paraphrased into "What has happened to freedom?" There is no question that today we have a political econometric system. We no longer live in a world controlled by its economies--instead, we live in a political world where politics dominate, control and tyrannize.

For those of you who are not aware of it, I will inform you now that--our country is moving towards Socialism faster than Russia did toward Communism!!

Just think about that for a moment!!

You know and I know who is to blame. I hope the voters will begin to realize that the responsibility of all of this mess and chaos is on the shoulders of those certain ambitious, short-sighted, arrogant, demagogic, self-serving, and conniving politicians in Washington. It is time for the voters to arise and rid this country of these irrational politicians who seemingly are dedicated to the downfall of this nation.

But the saddest and most tragic thought of all is that it could have been different!

Thank you.



NATURAL GAS RESERVES CARRY INTO NEXT CENTURY

The natural gas industry has reserves, proved and potential, to carry it "well into the 21st century," A.G.A. Chairman Paul E. Reichardt told the Gas Appliance Manufacturers Assn. recently.

Reichardt, chairman and president of Washington Gas Light Company, said "There are just no facts to support the thesis that our future economy can be all electric--or for that matter, all natural gas, all solar, all nuclear, all hydrogen, all coal, all waste-generated, or indeed all conservation--as some would have us believe."

In outlining the important role of natural gas in the nation's energy mix, Reichardt said that excluding transportation, nearly 38 percent of U.S. needs are met by natural gas. Reichardt said its million-mile pipeline network was "one of the most efficient transportation systems ever devised."

But interstate deliveries peaked in 1971 and have decreased annually since then, said Reichardt, because "sales are constricted by Federal Power Commission price ceilings. "Until Congress comes to grips with the imperative need to deregulate interstate gas prices at the wellhead, it appears this negative trend can do nothing but continue," said Reichardt.

MILD WINTER ONLY POSTPONED GAS CRISIS

Reichardt also noted recently that this year's mild winter helped to prevent a severe natural gas shortage. However, he added, America cannot depend on the weatherman to ease the energy crisis each year. A gas shortage was averted this winter, not because there was more gas, but because there was less demand, he stated.

In direct response to a Federal Power Commission report on the winter's decrease in gas demand, Reichardt has cited five reasons why the decrease can only be temporary: (1) the recession has caused a decline in the nation's production index, and thus a decline in industrial gas consumption; (2) unusually mild weather in 1975-76 reduced usage; (3) FPC rulings permitted emergency purchases by out-of-state users from the intra-state market; (4) individual gas utilities sought supplemental gas supplies; and (5) many gas customers switched to higher priced fuels, sharply increasing oil imports.

Reichardt expressed his fears that the FPC report could lead Congress to believe nothing needs to be done about the gas shortage.

A.G.A. PRESIDENT RESIGNS, LAWRENCE NAMED EXECUTIVE VICE PRESIDENT

To reduce his current span of responsibilities so that he may pursue more extensively a number of personal interests, F. Donald Hart, president of the American Gas Association, has submitted his resignation, effective Nov. 1, 1976.

Expressing appreciation for his contribution to the gas industry, the A.G.A. Executive Committee, with regret, accepted Mr. Hart's resignation. At the request of the Executive Committee, Mr. Hart has agreed to remain with the Association for the purpose of handling specific assignments including membership development, funding activities and liaison with related organizations.

The Executive Committee concurrently elected George H. Lawrence to the new position of Executive Vice President. Mr. Lawrence, formerly Senior Vice President-Public Affairs, will be responsible for the overall supervision of A.G.A. activities, reporting to Mr. Hart.

A.G.A. Chairman Paul E. Reichardt said the Executive Committee will recommend to the Board of Directors that Mr. Lawrence be elected President of A.G.A., effective with Mr. Hart's resignation Nov. 1.

CAPITAL NEEDED FOR NEW GAS INDUSTRY PROJECTS

Robert M. Dreves, chairman of the People Gas Co., Chicago, told the Senate Finance Committee in March that the gas industry "doesn't have the capital-raising ability to finance new supply projects without legislative and regulatory assistance." Testifying for A.G.A., Dreves said, "Investments for the next decade are estimated at \$90 to \$100 billion." Large amounts of money will be required to obtain much needed new supplies from coal gasification, the Arctic, synthetic gas and liquefied natural gas projects, he added. Dreves asked for tax reform legislation which would hopefully improve the internal and external generation of capital for the gas industry. He suggested that this legislation should: (1) increase the investment tax credit to 12 per cent; (2) provide a concurrent investment tax credit and immediate amortization on construction work in progress; (3) provide for faster amortization through increased depreciation rates for non-traditional and existing facilities; (4) require that the benefits derived from any change in the tax laws be retained by the utility; and (5) encourage the purchase of common and preferred stocks of energy utility companies by providing for tax deferral on dividends reinvested in the utility that pays the dividend.

DEVELOPMENT OF COAL GASIFICATION NEEDS FINANCIAL HELP

Joseph R. Rensch, president of Pacific Lighting Corp., told a recent Energy Technology Conference that the nation must develop coal gasification plants in order to take advantage of its most abundant domestic energy source. Gasification is one of the most economic, efficient and environmentally attractive means of harnessing energy from coal, Rensch pointed out. The biggest hurdle in the development of coal gasification plants is financing, he added, explaining further that the large investments required to build the plants are more than the total net worth of many of the nation's largest gas companies. He said that the first coal gasification plants cannot be built by the private sector without federal loan guarantees to attract necessary investors.

Rensch also testified for A.G.A. at a House Committee on Science and Technology on the commercial development of coal gasification. He said that early passage of the synthetic fuels loan guarantee bill (HR 12112) will provide the necessary finances to construct commercial gasification plants that will produce the most efficient energy from coal, using the existing one-million mile underground gas pipeline system. Rensch was among witnesses supporting the legislation who stated that they are ready to construct commercial demonstration plants as soon as favorable legislation is passed.

DEREGULATION NEEDED TO MAINTAIN PRODUCTION

The Federal Energy Administration will continue to support the deregulation of new natural gas in order to maintain "natural gas production at maximum levels," FEA Deputy Administrator John A. Hill told the Gas Men's Roundtable. "We have not run across anyone who would be willing to produce a product and sell it for less than it costs to produce." In reference to the President's message calling for a limit of "about one trillion cubic feet" of imported liquefied natural gas by 1985, Hill said this should be considered a "benchmark" figure and not "a hard and fast" number." He also stressed the importance of federal loan guarantees to stimulate coal gasification plant construction "particularly if we hope to reach full-scale commercialization between 1983-85."

MUELLER NEWS

Century Award



Modern Castings Magazine presented Mueller Co. with an award at the American Foundrymen's Society 80th casting conference held in Chicago April 26-30th.

The award was presented to Jack Parsons, Metallurgist and Foundry Process Engineer on behalf of Mueller Co. for being in business over 100 years. Mueller Co. was rated the 13th oldest foundry out of 57 foundries throughout the United States.



R.J. Cope

On March 25, R.J. Cope retired from his position as Sales Representative with MUELLER CO. Bob had completed 23 years of service with MUELLER CO. From 1952 to 1976, Bob was our Sales Representative in Kentucky and a part of West Virginia. On behalf of Bob Cope, we would like to express his appreciation for your loyalty and friendship during these years. We are sure you will join us in wishing him a full measure of good health and happiness.



R.H. Roarick

On March 31, R.H. Roarick retired from his position as Sales Representative with MUELLER CO. Ray had completed 35 years of service with MUELLER CO. From 1953 to 1976 he was our Sales Representative in the San Antonio area of Texas. On behalf of Ray, we would like to express his appreciation for your loyalty and friendship during these years, and we are sure you will join us in wishing him a full measure of good health and happiness.



C. Robert Fisher

C.R. Fisher, Sales Representative for MUELLER CO., will now serve as the Sales Representative for the entire state of North Carolina. This is due to a territory realignment for better service to our customers. After attending Purdue University, Bob served in the U.S. Army in Vietnam where he was awarded the Bronze Star. In 1969 he joined MUELLER CO. as a sales trainee. In 1970, after completing an intensive Sales Training Program where he gained a thorough knowledge of products for both the Water & Gas Industries, he was appointed a Sales Representative in our Southeastern Sales District. He has served in that capacity for the past 5½ years. Bob is married and his headquarters will be in the Charlotte area.



Sam R. McWilliams

S.R. McWilliams has been appointed Sales Representative for MUELLER CO. in the Southwest Sales District, succeeding R.H. Roarick. Sam joined MUELLER CO. in 1967 as a Sales Service Correspondent in our Chattanooga Plant. In 1969, after completing an intensive sales training program where he gained a thorough knowledge of products for both the Water & Gas Industries, Sam was appointed a Sales Representative in our Southern Sales District, where he has served for the past 7 years. Sam is married and has two sons. He and his family will make their home in the San Antonio area.



James W. Wagoner

J. W. Wagoner has been appointed a Sales Representative for MUELLER CO. in our Southern Sales District. He succeeds Sam R. McWilliams who has transferred to another Sales District. Jim joined MUELLER CO. in 1961. Since that time he has worked in our Decatur plant and in the Decatur Sales Office as Manager of Customer Records. He has completed an intensive program of Sales Training and this program combined with Jim's past experience has given him a thorough knowledge of products for both the Water and Gas Industries. Jim is married and has two children. He and his family will make their home in the Shreveport, La. area.



John W. D'Angelo

J. W. D'Angelo has been appointed a Sales Representative for MUELLER CO. in our Western Sales District, succeeding R. Wayne Black. John joined MUELLER CO. in 1968 and served in our Brea, California Sales Office as Sales Service Correspondent until he was appointed a Sales Representative. His work in the Brea Sales Office gave him an excellent background and experience working with both Water and Gas customers. He has also completed an intensive Sales Training Program which has given him additional knowledge of products for both the Water & Gas Industries and makes him well qualified to serve you. John is married and has one daughter. He and his family will make their home in Brea.



Ross Caylor

Ross Caylor has been appointed Sales Representative for MUELLER CO. in our Southeast Sales District, succeeding R. J. Cope. Ross has been selling water works products for a leading distributor for the past 22 years and has gained vast experience in water works distribution systems. Within a few months Ross will have completed an intensive Sales Training Program, gaining a thorough knowledge of products for both the Water & Gas Industries. This program combined with his previous experience enables him to provide you with a wealth of knowledge. He will be looking forward to serving you. Ross is married and will make his home in Lexington, Kentucky.

Off the Record

During World War II General MacArthur called in one of his army engineers and asked how long it would take to throw a bridge across a river.

"It will take three days," the engineer told him.

"Good," snapped the General. "Have your draftsmen make the drawings right away."

Three days later the General sent for the engineer and asked how the bridge was coming along. "It's ready," reported the engineer. "You can send your troops across right now if you don't have to wait for the drawings. They are not done yet."

"I got a brand new sports car for my wife." "No kidding? How'd you ever make a trade like that?"

"So your doctor finally told you to cut out wine, women and song?" "No, not my doctor—my accountant."

A kid down the street let his hair down and almost smothered to death.

Strange how unimportant your job is when you ask for a raise, and how important it is when you want a day off.

Happiness is when the slip of paper under the windshield wiper turns out to be an ad.

Yesterday the computer broke down and everybody had to think.

There's a new expensive perfume on the market now. It's called "Evening in Arabia." It smells just like gasoline.

"Economy size" means large in soap chips and small in automobiles.

Now some scientist wants to conserve gasoline by stretching it with alcohol. And all along we've been telling people the two don't mix.

Congress has almost as much trouble deciding how to spend the money as the taxpayers have in raising it.

The optimist said, "A year from now we will all be begging." The pessimist asked, "From whom?"

Bill: "Have you ever realized any of your childhood hopes?" Pete: "Yes, when mother used to comb my hair, I often wished I didn't have any."

Patient (coming out of the anesthesia): "Why are all the shades pulled down?" Nurse: "The house next door was on fire and we didn't want you to wake up thinking the operation was a failure."

A valley in Southern California is so polluted you get obscene echoes.

A farmer was trying hard to fill out a railway company claim sheet for a cow that had been killed on the track. He came down to the last item: Disposition of the carcass." After puzzling over the question for some time, he wrote: "Kind and gentle."

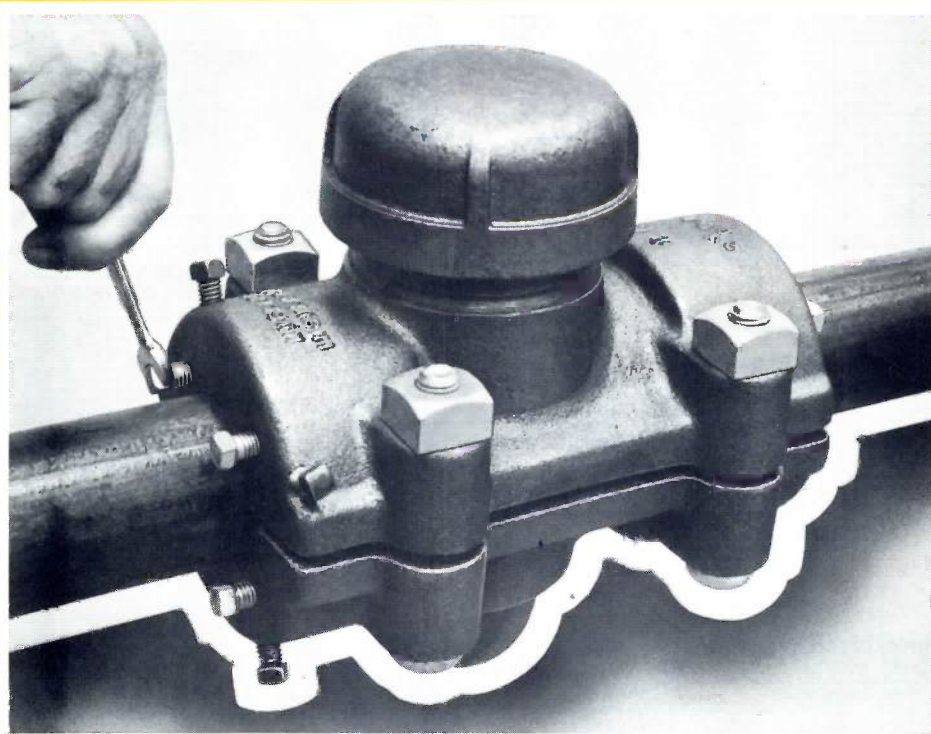
"Why does a woman say she's been shopping when she hasn't bought a thing?"

As he was drilling a batch of recruits, the sergeant saw that one of them was marching out of step. Going to the man as they marched, he said sarcastically: "Do you know they are all out of step except you?" "What?" asked the recruit innocently. "I said they are all out of step except you," repeated the sergeant. "Well," was the retort, "you tell 'em. You're in charge."

MUELLER CO., DECATUR, ILLINOIS

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Not only is the main section iso-

lated, you have provided for future stop-offs! The H-17166 Fitting can be stopped-off at any time using your existing MUELLER Line Stopper Equipment.

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