



Fitter craft the largest

This is another in a series of articles about the duties and skills performed by various departments and crafts in the refinery.

The largest craft in the refinery is the pipefitter group with approximately 200 craftsmen.

A craftsman who earns the classification of first-class pipefitter has done so by displaying the advanced skills of the trade. This comes with experience, training and dedication. One must work hard to achieve it.

Training/experience

Although the route to pipefitter 1st is by no means on a specific timetable, *generally speaking*, it goes like this at Wood River: new employees hired into the laborer group express a desire to get into the pipefitters (or other crafts) as openings become available.

Those chosen generally enter at the pipefitter helper level. After a period of time learning the trade on the job as

a helper, the individual may be given an opportunity to expand his skills and responsibilities by moving up to the pipefitter 2nd level.

To the on the job training that the individual has accumulated up to that point, formalized training is added. This is in the form of classroom work - about two hours a week for roughly six months.

During a 12-months' assignment as a pipefitter 2nd, the craftsman is expected to be able to perform more complicated assignments than he did as a helper. At the end of this period, based on the achievement of a satisfactory skill level and the successful passing of a comprehensive written test, the individual is promoted to pipefitter 1st.

Among the best

Wib True, pipefitter craft supervisor said, "We've got as fine a group of pipefitters as you'll find anywhere. They are highly skilled and capable. I'd put our group of pipefitters up against any in the trade."

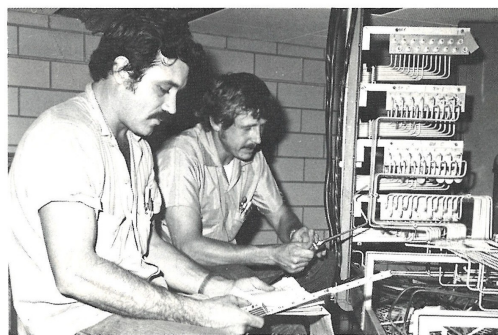
First-class pipefitters who express an interest and show ability may fill openings as qualified welders and perform this activity within their craft as part of their duties. Not all pipefitters are required nor choose to perform this particular duty, however.

Pipefitters can be seen on the job throughout the refinery: in various operating and maintenance areas, on construction projects, on shutdown maintenance, and in the pipe fabrication shop.

Imagination

"You don't become a skilled craftsman just by picking up a wrench and charging off somewhere," said True. "A good pipefitter, for instance, not only has the mechanical knowledge about pipe, tubing, fittings, and fabrication - and the physical coordination to perform - he also has to have other abilities."

"Like a knowledge of basic math and even some geometry and trigonometry. And he's got to be able to understand



Kenny Scheibel (left) and Dave Manning renew instrument tubing in an Aromatics control room.

and interpret blueprints ... even make usable field sketches that others can interpret.

"But you know what else a good pipefitter craftsman needs? Imagination! That's right - imagination, and innovation."

"Think about it. Sometimes a pipefitter is asked to connect a set of pipes from one location to another ... often in tight quarters. He's got to be able to visualize what lengths, and angles, and turns, and sizes will be required to get the job done. That takes a special knack. It is an interesting and challenging craft."

"Teamwork is also essential. Each craftsman must be able to function as a part of a team - not only with those of his own craft, but also with the other people involved on the job."

Well done

Mike Boyle, senior engineer

Maintenance, said, "The abilities of our various craftsmen here at the refinery never cease to amaze me. Wib True talks about imagination and fitting pipes through tight spots."

"A while back, modifications were being made on the treaters at Boiler House 2. To me it was like a bowl of spaghetti, but when completed it was a masterful job of fitting in a pretty restricted area ... and just perfect! A very impressive effort."

Examples of the skill of Wood River's pipefitters can be cited endlessly. Suffice it to say that in a place with thousands of miles of pipe, the pipefitters play an important role in the day to day activities of Wood River Refinery.

(See more pictures on page 4)

Make mine metric ... ten liters of super please

When President Ford signed the Metric Conversion Act on December 23, 1975, he committed the United States to a voluntary program of increased metric usage. The familiar mile, yard, quart, and ounce will soon become kilometer, meter, liter, and gram.

Since no time limit was set for the conversion of the imperial system of measurement to the metric system, the changeover will not occur

overnight. Conversion will be gradual, like the process of evolution. Even so, it's interesting to note that a recent offshore lease sale was conducted not in acres, but in hectares.

The act establishes a 17-member U.S. Metric Board, to be appointed by the president, to assist in planning and coordinating the changeover. Although Shell has no formal metric committee, the responsibility for keeping track of

metric developments falls with Shell's engineering council.

Liter bit

R.G. Jobe, Construction Relations and Engineering in Houston, is Shell's metric expert of sorts. Jobe is responsible for working with inside and outside metric planning organizations and considering their impact on Shell's engineering activities.

Jobe says, "There will be a time, not before 1980, when all suppliers of petroleum will be selling gasoline in liters. This means Shell and other industries must prepare to change everything from gasoline pumps to bookkeeping. The whole system will change."

In view of this fact, D.T. Waldo, Retail and Commercial Engineering, made a preliminary draft of the future requirements for Shell. In his report, Waldo noted several

reasons why the United States has voluntarily decided to make the change.

Among the most important is that by January 1, 1978, all members of the European Common Market will be transacting their business in the metric system. Waldo also notes that the metric system is easier to understand and work with.

International standard

The metric system has been adopted as a standard by most of the countries that conduct business with the U.S. In fact, the U.S. is one of only a few countries that has not converted to the metric system. According to the British Metrication Board, only five countries aren't metric or going metric: Brunei, Burma, Liberia, the Yemen Arab Republic, and the People's Democratic Republic of Yemen.

The American Petroleum Institute (API) fully supports metrication and recommends that a 10-year time period be established for conversion by government and industry. Jobe says that the process will be slow since there is no clear economic incentive to convert. But he notes that metrication can lead to direct savings and marketing opportunities which result from international standardization and interchangeability of parts and components in many industries.

Shell is participating in voluntary metrication activities through committees of API, The American National Standards Institute, and the American National Metric Council.

Since metrication will affect everyone in many ways during the years ahead, the *Wood River Review* plans several additional articles on the subject in upcoming issues.



What in the whole world could be more fun for a two year old than a fudgecicle and a merry-go-round? See Shell-folks having fun at the SRA Family Picnic ... on page three.

Shell BLADEX plant for Illinois

What better place is there to situate a herbicide formulation plant and distribution center than in central Illinois ... in the heart of the corn belt?

Shell Chemical Company is doing just that near El Paso, Illinois - about 15 miles north of Bloomington and 25 miles east of Peoria.

The new facility, which is expected to employ about 100 people and be operational in late 1977, will primarily formulate and package BLA-

DEX®, the widely used corn herbicide. The product comes in both liquid and wettable powder form.

Ray Gasperi, a 27-year Shell veteran, will be the facility's superintendent. He has a degree in mechanical engineering from Iowa State University.

Gasperi said, "The new plant will help us meet expanding needs for BLADEX, our proprietary corn herbicide, and other triazine her-

bicides used extensively here in Illinois." He also indicated that Shell will be manufacturing and selling atrazine (another popular triazine herbicide for corn) for the first time in the 1977 season.

Herbicides which will be formulated and packaged at the El Paso facility will be manufactured in a 50 million pound per year plant currently under construction in Mobile, Alabama.

Employees/pensioners writing to senators

Presumably as a result of recent news coverage and private discussions about pending legislation in the United States Senate designed to dismember this country's large oil companies (including Shell), the *Review* has received requests for the Washington D.C. addresses

of Illinois and Missouri U.S. Senators.

In response to these requests, these names and addresses are listed at the right. Best estimates are that Senate Bill 2387, the "Petroleum Industry Competition Act" will be debated and voted on sometime in late August.

Illinois Senators

Honorable Charles H. Percy
Room 4321, Dirksen Senate Office Bldg.
Washington, D.C. 20510

Honorable Adlai E. Stevenson III
Room 456, Russell Senate Office Bldg.
Washington, D.C. 20510

Missouri Senators

Honorable Thomas F. Eagleton
Room 6235, Dirksen Senate Office Bldg.
Washington, D.C. 20510

Honorable Stuart Symington
Room 229, Russell Senate Office Bldg.
Washington, D.C. 20510

Proved reserves of domestic oil and gas hit low points

According to the American Petroleum Institute (API) and the American Gas Association (AGA), U.S. proved reserves of crude oil and natural gas both declined in 1975.

Domestic production of crude oil has dropped each year since 1970; proved reserves have declined 16.2 percent in that time. The 1975 decline in natural gas' proved reserves marks the fifth straight year of declines, and the

seventh in the last eight years.

Discounting the large discoveries in Alaska during recent years, the lower-48 states' proved reserves are at their lowest point since 1948 for crude, and 1951 for natural gas. These were years when the consumption of energy resources were significantly lower than they are today (only 40 percent of today's consumption in the case of natural gas, for instance).

Proved reserves are defined as those which are known to exist and which are reasonably certain to be recoverable under the economic and operating conditions existing at the time of the estimate. Separate estimates of potential or unproved supplies foster bigger reserve figures.

Encourage production

Frank N. Ikard, president of the API, and F. Donald Hart, president of the AGA, both had comments on the latest figures.

Ikard said, "It is obvious that a much greater exploration and drilling effort - including remote and difficult areas such as the outer continental shelf - will be needed to reverse the downward trends in domestic reserves and production and to reduce U.S. dependence on high cost foreign oil.

"If our country is to achieve that goal, the U.S. government will have to adopt policies that will encourage domestic energy production. Although it is more than two years since

the 1973-74 oil embargo ended, that action is still nowhere in sight."

Remove controls

AGA president Hart said, "The most effective means of reversing the continuing natural gas shortage is through reasonable long term policies that remove present federal controls on new gas. Current federal policies only aggravate the factors which fail to provide the economic incentive to search for and develop new supplies.

"Several factors combined to lessen the impact of the natural gas shortage this past winter ... warmer weather, the low level of economic activity, industry actions pursuant to existing law, increased oil imports, and emergency federal

actions. We cannot expect to build a national energy policy upon such uncertain foundations."

Hart concluded that while there is a tremendous resource base of natural gas in the United States, it will remain just that - a projected potential - until Congress acts to remove federal controls on the wellhead price of new natural gas and permit adequate economic incentive for expanded activity.

The table lists selected states and their proved reserves of crude and natural gas. Those listed are among the leaders in these categories. The proved reserves (or lack of them) for Illinois and Missouri are included for local reference.

Estimated proved reserves in selected states (as of Dec. 31, 1975)

State	(Billions of barrels) Crude Oil	(Trillions of cu ft.) Natural Gas
Alaska	10.037	32.051
California	3.648	5.484
Illinois	0.161	0.381
Kansas	0.364	12.661
Louisiana	3.827	61.309
Missouri	—	—
New Mexico	0.588	11.759
Oklahoma	1.240	13.083
Texas	10.080	71.037
Wyoming	0.877	3.703

In remembrance



E. L. Green

EDWARD L. GREEN, May 17. Mr. Green was a pipefitter 1st before retiring in 1963. He was 75.



W.C. Johnson

W. C. JOHNSON, June 17. Mr. Johnson was a brickmason foreman before retiring in 1957. He was 79.



J.C. Barton

JOHN C. BARTON, June 8. Mr. Barton was an operator 1 in Distilling before retiring in 1968. He was 63.



C.I. Kline

CLIFFORD I. KLINE, June 26. Mr. Kline was a pipefitter 1st and had worked at Wood River for 36 years. He was 61.



W. Reed

WILLIAM REED, June 18. Mr. Reed was a tinner 1st before retiring in 1954. He was 81.



J.W. Robinson

JOHN WILLIAM ROBINSON, June 22. Mr. Robinson was a truck driver before retiring in July 1975. He was 61.



W. H. Suhre

WALTER HENRY SUHRE, May 7. Mr. Suhre was an automotive mechanic 1st in the Research Lab before retiring in 1963. He was 76.

Sports and shorts

Jack Armstrong

Jack Armstrong, Director Oil R&D Products at the research center in Houston becomes superintendent of the Wilmington, California Manufacturing Complex effective August 1. Armstrong was director of the Wood River Research Lab before it was moved to Houston. Manager of the Wilmington Complex is another former Wood Riverite, Tom Innocenzi.

Bicentennial blunder

Twelve year old Diane Peat, daughter of Jim Peat of Engineering Office, caught a mistake in last month's bicentennial quiz. Diane points out that John Jay (not John Marshall) was the first Chief Justice of the United States Supreme Court. He served in that post from 1789 to 1795. Nice catch, Diane!

Trap shootout

The SRA trap league ended in a first place tie between the Shell Blanks, captained by Larry Ray, and the Shell Shuckers, captained by Don Bradfisch. A shootout to determine the refinery champions was pending as the *Review* went to press.

Golf tournament

The individual match golf tournament began July 26. Golfers who have entered must have first round matches completed by August 13, and second round matches by August 27. Players should check with their SRA team captains for more details.

Bowling begins

Would you believe the bowling leagues start this month? August 30 and September 1 to be precise. Interested bowlers not yet on a team can get more information by contacting John Thomas in the Tech Department.

Classified ads

For Sale

Motorcycle. Kawasaki 900. Jackie Ball. 618-254-8833.

Motorcycle. 1973 Yamaha Enduro. 125 cc. 2900 miles. Excellent condition. \$350. (No sales tax.) Don Smith. 618-656-0045.

Dining room set. Drop leaf table with additional leaves. Four padded chairs. China cabinet. Traditional walnut finish. Excellent

condition. \$155 for all. Carl Maddox. 618-459-3682.

Swimming pool. Above ground type. Needs new plastic liner, but otherwise good condition. Don Belliss. 618-259-1176.

Found

Man's class ring. Year: 1955. Jesse Billings. 618-465-3683.

Another fun-filled family picnic!

Sunny, hot, busy, and fun ... another SRA Family Picnic drew a big turnout at the Chain of Rocks Park in St. Louis on Saturday, June 26.

If you were there, you can attest to it. If not, sit back and enjoy the pictures and make plans to attend the affair with your family next year.

In the hustle and bustle of such a busy afternoon, it isn't possible to identify everyone we took pictures of. But if you see yourself or a member of your family pictured, drop a note to *Review* editor, Bill Gibson, and he'll see to it that you get some extra copies of the paper.



MMMM! What could be better on a hot day than a cold soda?



BINGO was a popular pastime. Ethel and Winston Wallace hope for a winning combination. Winston is an Engineering Services Inspector.



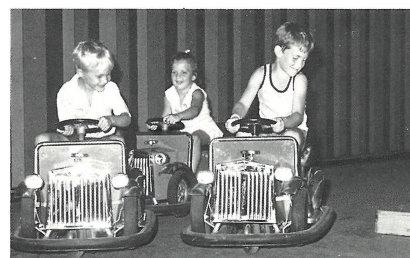
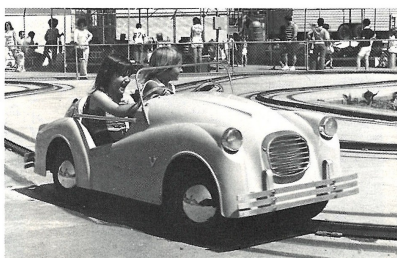
HOLD ON MOM! Ann Miller struggles to keep her balance on the merry-go-round, but young Sarah is too occupied to offer any assistance. Ann and Sarah are the wife and daughter of Dave Miller, process manager of Gas.



WHAT A DAY!



MAD MOUSE-ing it around the track, these two young men show absolutely no trace of fear ... or do they?



ROUND AND ROUND they go! Auto rides were popular with the younger set ... and they did quite well indeed.

Come to Shell for answers about gas mileage and no-lead use

Only a short time ago, the "energy crisis" was a prime topic of conversation. But this is an election year, with nationwide politicking dominating the news. What's more, the oil-producing Arab nations are behaving responsibly, there has been no oil embargo, and the need for the conservation of energy has been crowded out of the headlines.

Energy isn't getting the public attention it did a few years ago. Nevertheless, the potential for future energy shortages remains, and the need for conservation is as important as ever.

If every driver drove a properly tuned car properly, the total gasoline saved would be virtually incalculable.

For that reason - and in line

with Shell's "Come to Shell for Answers" advertising theme the *Wood River Review* plans a series of question-and-answer articles on car care, good driving habits, and energy conservation. This is the first of those articles.

Q. How can I increase my gasoline mileage?

A. Gasoline mileage is a factor which frustrates many automobile owners. Cars are like individuals. Even two cars of the same make and model will perform differently. While the gasoline you choose may have some effect on mileage, the factors which most influence mileage are the operating efficiency of the car and the driving habits of the person behind the wheel. To attain maximum gasoline

mileage from any car on a particular gasoline, the car should be tuned to peak performance and the driver should pay careful attention to his driving habits. Here is a list of tips which may prove helpful:

1. Accelerate slowly.
2. Minimize braking by anticipating need to slow or stop.
3. Reduce cruising speeds (above 40 MPH).
4. Turn corners slowly.
5. Hold throttle steady, let speed drop going down hills.
6. Do not "exercise" gas pedal.
7. Consolidate short trips.
8. Minimize idling when starting up.
9. Avoid prolonged idling (railroad crossing, traffic

jam).

10. Shift into high as soon as possible.
11. Keep engine in good tune.
12. Keep tire pressure up.

Q. Can I use unleaded gasoline in my 1971 car?

A. Beginning with the 1971 model year in the case of GM cars, and the 1973 or 1974 model year in the case of Ford, Chrysler, and AMC cars, the metallurgy of the exhaust valve seats was changed as needed to allow for the continuous use of unleaded gasoline. When the owner's manual states that the car can use either leaded or unleaded gasoline, it is left to the discretion of the driver to purchase whichever gasoline he desires. There should be no need to use an occasional tankful of leaded gasoline in the above-mentioned cars.

All GM cars from 1971 on may use unleaded gasoline. Since the change in valve seat metallurgy was split between 1973 and 1974 for Ford, Chrysler, and AMC cars, it is necessary to check the owner's manual to determine which of these cars are designed to use unleaded gasoline exclusively. Of course, the majority of the 1975-76 cars require the exclusive use of unleaded gasoline, and leaded gasoline should never be used in the 1975-76 cars with this requirement.

Shell's Consumer Relations Department stands ready to answer other questions on gasoline mileage and other energy matters. Those questions should be addressed to John Finsland, Room 2714, One Shell Plaza, Head Office, Houston.

'Man in moon' blamed for obscene phone calls

That old devil moon! Having already been convicted by association for the actions of Lon Chaney, Jr., and other werewolf weirdos, as well as by assorted law enforcement and medical officials, that friendly, shining, old man in the full moon is now getting his lumps from the telephone company.

According to staff members of the Annoying and Anonym-

ous (A&A) Calls Bureau for Southwestern Bell Telephone in St. Louis, the volume of obscene and/or threatening phone calls goes up about full-moon time. They don't offer any scientific or astrological explanations for this, but point to their records as proof.

According to Southwestern's A&A sleuths, who say

over 16,000 abusive calls were reported in 1975, they divide abusive calls into three categories: annoying calls -- obscene or harassing calls -- and threatening calls.

Customers who report such calls to Southwestern's business offices are contacted by the A&A Bureau to see what action, if any, they'd like to take. Sometimes customers opt to have electronic line

equipment installed.

This equipment doesn't tape conversations, but merely identifies the number of the telephone originating the call. The Bureau passes on whatever material it uncovers (with or without special equipment) to Southwestern's Area Security Office which coordinates with the police and the customer for further

action ... at the discretion of the customer.

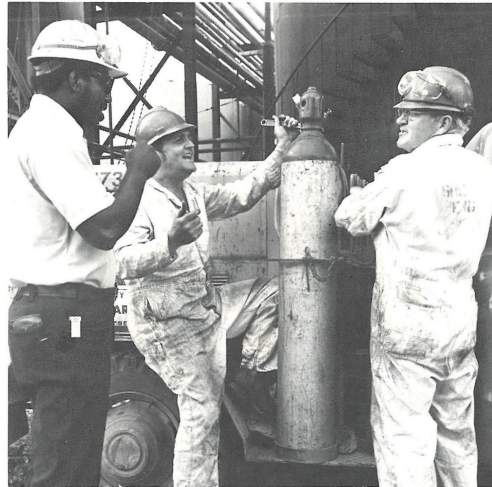
A check with Illinois Bell reveals similar procedures of their own. The maximum penalty under Missouri law for making an annoyance call is a \$1,000 fine or one year in jail or both. In Illinois, maximums are \$500 and/or six months ... except that the jail term could go up to 18 months if disorderly conduct is determined.

From page one...

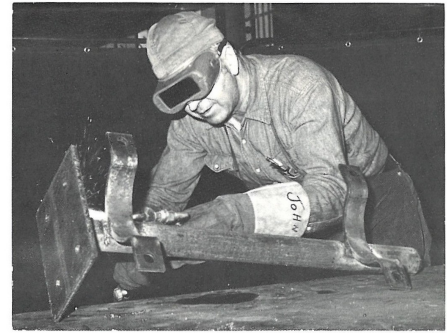
Pipe craftsmen fit it together



George Grizio prepares for a welding job on a weld neck flange in the pipe shop.



Henry Vassar (left), lube area maintenance foreman, confers with Dean Lovell (center) and Conrad Russell as they prepare to change an oxygen bottle on their welding rig.



Engrossed in his work, John Fields fabricates a pipe bracket support in the shop.



Al Schneider (left) shows Wib True the progress being made on some overhead piping work. True is metals crafts supervisor.



The man behind the mask is Leroy Ducommun. Leroy is welding a flange to a pipe section.



Expert in the care of rigging equipment is Lynn Cochran. Eying the gauge, Lynn tests a chain hoist in the tool repair area.



Precision cutting of pipe is enhanced by the use of this machine being used by Gary Spears (left) and Jim McGee.



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