

shellegram



SHELL OIL COMPANY
HOUSTON REFINERY

SHELL CHEMICAL CORP.
HOUSTON PLANT

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Alkylation Plant Growth Designed To Raise Aviation Fuel Production

Construction work now underway at the alkylation unit of the Refinery Gas Dept. is designed to manufacture a higher quality alkylate, thereby resulting in the production of greater quantities of aviation fuel.

The facilities being constructed are actually an extension of the existing alkylation plant, with a number of modifications and improvements. These new facilities are expected to go on stream by July 1.

The higher octane alkylate will be realized from this unit because of increases in reactor volume and isobutane circulation capacity. In addition to increasing the quality of the product, the facilities will decrease the consumption of sulfuric acid, which is used as a catalyst in this operation.

This construction project is being handled in part on a contract basis by the Pioneer Industrial Co. and in part by

Refinery Engineering employees. Pioneer is handling the installation of all new plot facilities such as the reaction and fractionation equipment.

Shell employees are doing the work on off-site facilities such as new piping; revisions to the sour depropanizer unit in Distilling; the addition of five new pumps and the replacement of four others in the present alkylation plant, and construction of new cooling water facilities. Shell has directly purchased all the materials going into this construction.

Another innovation on this project is the special IBM pro-

cedure developed for handling and accounting for equipment and supplies used in construction. This system is used to control and expedite Purchasing-Stores functions and in addition serves as an accounting system for monetary control of the project.

The engineering design for this project has been about equally divided between members of D. H. Wheeler's drafting group in Engineering Office and outside engineering concerns. H. J. Lewis and E. J. Nelson are sharing the duties as Project Engineers on this job, while T. L. Davis is work-

See ALKYLATION, Page 2



FOUR OFFICIALS of the Credit Union take part in the annual meeting at which all 1958 officers were re-elected for 1959. Standing are Board Member H. F. Tighe, and Treasurer-Manager G. F. Breckenridge. Seated are Credit Union President J. B. Harkness and Secretary Vivian Tucker.

Every Officer Re-Elected; Credit Union Pays 4.75%

Credit Union members at their annual meeting Jan. 21 approved a 1958 dividend of 4.75 percent and then endorsed the past year's administration of their organization by re-electing all members of the Board of Directors and of the various committees.

Some 175 members attended this meeting in the Gulf Gate auditorium and heard reports attesting to the growth and stability of their Credit Union. A 1958 membership of 5,310, savings of \$2,416,000, and a net profit of \$176,430 are all-time records for the group.

In addition to the 4.75 percent dividend on shares outstanding as of Dec. 31, 1958, the Credit Union also paid a 15 percent interest refund to all Dec. 31, 1958, members of

record who paid interest on a loan during the year. The crediting of these payments to members' accounts has recently been completed and amounted to more than \$99,000 in dividends and more than \$38,000 in interest refunds.

Other business at the meeting included the approving of plans to close the business windows at both plants when the new Credit Union building is opened in Deer Park.

Total expenses for the past year were described by President John Harkness as showing a "remarkably low" ratio to income. Expenses in 1958 were down \$14,562 from 1957 and were only 33.9 percent of total income as compared to 44.3 percent the previous year.

Other re-elected officers of the group are J. E. Garrison, vice president; Vivian Tucker, secretary, and G. F. Breckenridge, treasurer. Also continuing on the Board of Directors are H. F. Tighe, W. H. Berkeley, C. H. Welch, Dixon Kirk and J. B. Bradshaw.

Serving another year on the

See CREDIT UNION, Page 2

Provident Fund Interest Rate Set at 3 3/8%

Shell Provident Fund Trustees recently announced the authorization of a year-end distribution of earnings for 1958 at an interest rate of 3 3/8 percent.

This interest rate showed an increase for the second consecutive year, having been set at 3 1/4 percent in 1957 and 3 percent in 1956.

These 1958 earnings are being credited to members' accounts, and statements will be forwarded to each member as soon as they are received here.

Phenol Unit Construction Begins With Work On Offsite Facilities

Preliminary ground breaking and construction of offsite facilities for the new Phenol Plant located east of EPON® Resins Unit No. 2 are underway. Present estimates indicate that construction of the process unit will begin in early March.

Ray Gasperi, Project Engineer, and Oscar LaCour, Assistant Project Engineer, are in charge of the offsite facilities work. This will encompass construction of roads, sewers, fire water mains, an electrical

substation, intraplant piping, pipeways and a complete cooling water system.

Thus far the necessary sewer and fire water mains have been laid. About 60 per cent of the necessary pipeways have been erected. The pipeways were constructed of precast concrete and were installed in place using a new fast assembly connection for precast concrete structural members designed and developed by M. H. R. Cogan, Assistant Chief

See PHENOL, Page 3

Purcell Named To Second Term By Pasadena C of C

Glenn Purcell, Chemical Plant Manager has been named to a second term on the Pasadena Chamber of Commerce's Board of Directors. He was officially installed at a dinner held at the Ellington Air Force Base Officers Club.

The Chamber's objectives are to promote the welfare and good community relations of Pasadena, thereby helping to make the city a better place in which to live. It encourages industry and trade and strives to make the citizens of the community more aware of city, state and national governments.

Purcell was praised for his work with the Chamber by

business manager Malcolm Maupin who said, "Glenn Purcell is an outstanding example for all Chamber members. His efforts and hard work have done much to further the aims of the Chamber."

In addition to being a member of the Pasadena Chamber of Commerce Purcell is active in the Houston Chamber of Commerce and many other professional and civic organizations.

Membership in these organizations does not constitute the extent of Purcell's work, for in many of these he has served as a director or officer or as a member of various committees.



CHEMICAL PLANT Manager Glenn Purcell talks with past and present presidents of Pasadena Chamber of Commerce. Purcell has been re-elected to a director's post with the chamber. On left is ex-president J. G. Byus and right is president elect A. O. Bailey.

Miller Planning May Retirement

J. L. Miller, who was Superintendent-Operations of the Houston Refinery for more than 20 years, will retire on May 31 after completing more than 39 years of Shell service.

He is currently manager of the Montreal Refinery of Shell Oil Company, Ltd., having taken up that post in January, 1957. He will be succeeded at Montreal by L. T. Wilson, now Director of Refining and Supplies for Compania Shell de Venezuela, Ltd.

Miller joined Shell Oil Company in 1920 as a gauger at the Wood River Refinery and held positions of increasing importance there and at Arkansas City and East Chicago until being named Superintendent here in 1937.

It is understood that Miller plans to retire somewhere in the Houston area.

Credit Union—

(Continued from Page 1)

Credit Committee to handle Chemical Plant loan requests are B. L. Stanley, L. V. Ash and M. A. Elledge. Handling those duties at the Refinery are Cleve O'Toole, D. L. Barfoot and R. B. Morelan.

The Supervisory Committee for 1959 will continue to be composed of M. G. Jordan, J. R. Hudson and F. J. Szopa.

A report of loan activities by the Credit Committee showed that 2,808 loans were made in 1958 at a total value of \$2,864,866. Members' loans outstanding as of Dec. 31 amounted to \$2,321,367.

At the meeting, architect Robert W. Maurice discussed plans for the new building in Deer Park. Construction is expected to begin around the first of March.

Fourteen members attending received door prizes. Winner of the portable TV set was L. D. Heinze of the Chemical Plant. B. T. Weatherly and A. J. Ezzell, Refinery, and Mrs. Nola Foshee were winners of transistor radios.

Twenty-five dollars in Credit Union shares each were won by E. H. Baker, David Hood, E. M. Williams, Mrs. J. E. Garrison, Jack Hale, D. L. Price, L. B. Race, C. L. Lanham, H. V. Gettys and Eddie Twitty.



ABOVE IS a general overall photo of the Credit Union members in attendance at the annual meeting on January 21 in the Gulfgate auditorium.



WINNERS OF \$25 worth of Credit Union shares as door prizes at the annual meeting are in the back row L. B. Race, A. J. Hale and H. V. Gettys, of the Refinery, and E. H. Baker of Chemical. The boy in front is Eddie Twitty, son of R. Q. Twitty of the Refinery. The others are David Hood and E. M. Williams of Chemical, C. L. Lanham and D. L. Price of the Refinery, and Mrs. J. E. Garrison.

D. B. McCants Attends Area Management Course

Don McCants, Assistant Manager, Refinery Dispatching Dept., was one of the 26 participants in the third annual Management Course presented recently in Galveston by the Houston E&P Area.

This two-week program is given primarily for the benefit of supervisory personnel from the Houston Area, but McCants was invited to attend because his work at the Refinery is closely related to production and transportation of crude and the sale of products.

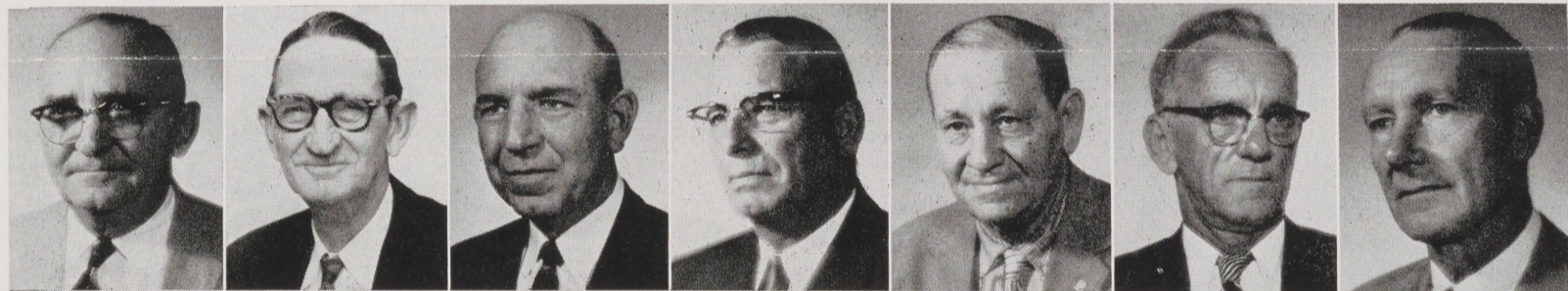
Refinery Manager John Tench and Administrative Superintendent P. E. Keegan assisted in the presentation of this course by appearing as

speakers on two of the programs. Other speakers from the Houston Area, local Shell units, Head Office and outside organizations, as universities.

Approximately 70 percent of the program was devoted to the study of Shell as an integrated company and the organization and function of the Houston Area. The remainder was concerned with the study of the management process and the skills of supervision.

McCants has been an employee since 1935 when he came to work at the Refinery as Yield Clerk. He subsequently became Meter Superintendent, Operating Assistant in Dispatching and then Assistant Manager, Dispatching. He holds a B. A. degree from the Institute.

30 Years Service



G. J. Blaney
Eng. Field (Refy.)

E. H. Browning
Eng. (Chem.)

C. L. Hanna Jr.
Distilling (Refy.)

C. S. Lindsey
Eng. Field (Refy.)

G. Y. Mason
Eng. Field (Refy.)

V. C. Mayberry
Eng. Field (Refy.)

Norman Thew
Gas (Refy.)

Alkylation—

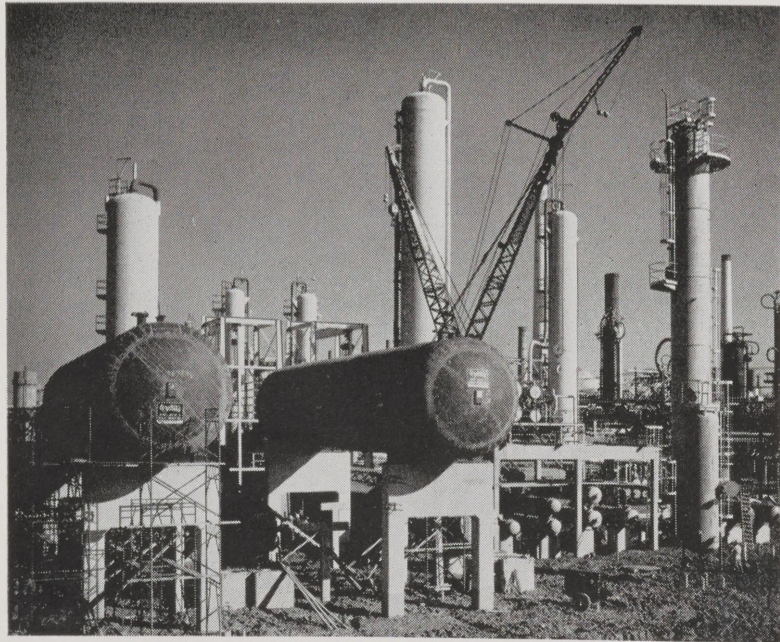
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ing on the job site as Engineering Inspector.

Major reaction equipment being installed includes two horizontal Stratco alkylation contactors, new acid settlers and ammonia surge vessels. Fractionation equipment includes a new partial debutanizer and revisions to the exist-

ing depropanizing facilities to permit an increase in the isobutane recycle ratio. A small pre-flash column is being installed to handle increased alkylation yields.

Of the 54,746,990 barrels of lubricating oils sold in 1956, some 28,454,969 barrels were bought by the automotive business; 1,501,118 barrels by the aviation industry; and 24,790,903 by other industries.



AN OVERALL VIEW of the construction area in the Refinery Gas Dept. shows the addition and extension being made to the alkylation plant.

Pasadena Concert Association Elects DeLong New President

C. W. DeLong, Assistant Chief Engineer at the Chemical Plant has been elected president of the Pasadena Community Concert Association. DeLong had previously served on this organization's membership committee as co-chairman of the industrial division.

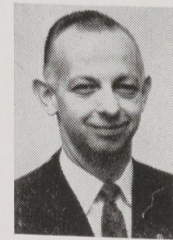
Gloria Schamerhorn, Stenographer in Engineering, was also elected to office and will serve as association secretary.

This is the second season for the concert association. According to DeLong, each year has been a season of wide scope and fine quality. This year and next the association's

schedule calls for four concerts. Next year it will sponsor what will be the largest undertaking to date when the New Orleans Symphony Orchestra will appear.

The term *concert* is somewhat misleading as it pertains to this group, for it not only features noted musicians but this year sponsored an evening of ballet.

Memberships in the organization are sold once each year and only members may attend the performance.



C. W. DeLong



Gloria Schamerhorn

Error Corrected

In listing the Shell employees who are members of the Deer Park Charter Commission last month, the *Shellegram* inadvertently omitted the name of Charles E. Walker of the Refinery Treasury Dept. who is secretary of the Commission.

Our apologies are hereby extended.

State Gas Tax Deduct Allow

If you're an average motorist, you paid \$55 in gasoline taxes during 1958. Actually, for every dollar you paid for the fuel itself, you spent an extra 42 cents in direct, local and state taxes.

Part of these taxes is deductible on your income tax return and you can profit by keeping this fact in mind if you have not yet filed for return.

The Federal Government allows a portion of the tax amount deducted on either the Federal or state income tax return to be deducted on the Federal income tax form. However, is deductible on the Federal income tax form only if it is deductible on the state income tax return.

Even if you don't keep records of each gallon of gasoline you buy, you can prepare a reasonable deduction. First, estimate the number of gallons you get from a gallon of gasoline and divide this into the number of miles you drove last year. Multiply this result by the tax per gallon in your state. This final total is your deduction.

For example: if you drove 10,000 miles and got 14 gallons per gallon, you would have used about 700 gallons of gasoline in 1958. By multiplying 700 by the Texas tax per gallon of six cents you determine the amount you can deduct.

You can deduct this amount if you don't use your car for any part of your income.

To provide you with information about...

Public Issues Affecting Our Industry

When Do Gasoline Taxes Become Threat to Sales?

In the months immediately ahead, the public is faced with a rash of increases in gasoline taxes.

The reason? Threatened state and Federal deficits—with gasoline, already heavily taxed, being singled out to bear a substantial part of the new tax burden.

The idea of taxing gasoline is 40 years old. The first gasoline tax—one cent a gallon—was enacted by the State of Oregon in 1919. The tax on gasoline proved a popular means of raising revenue, and by 1929 all 48 states had gasoline taxes.

The principle behind most early gasoline taxes was that this was a fair way to raise funds for building and maintaining highways. From the legislator's point of view, gasoline taxes were easy to collect; they also taxed highway users in proportion to their use of the highways.

During the depression, many state legislatures, desperate to raise revenue from any source, increased their gasoline taxes and used these funds for non-highway purposes.

"Temporary" Tax Still With Us

Until 1932, the field of gasoline taxation was commonly considered to be one reserved to the states; in that year the Federal Government imposed a "temporary" tax of one cent a gallon to raise money to combat the depression. Like many other "temporary" taxes, the Federal gasoline tax is still with us.

Until 1956, the Federal Government used the funds collected for general purposes. In July of that year, the Federal gasoline tax was increased to three cents a gallon for the avowed purpose of creating a Federal Highway Trust Fund to finance the proposed new Federal Highway Program.

Meanwhile, many state legislatures also raised gasoline taxes. The average of state and Federal taxes combined, which stood at six cents a gallon at the end of 1945, now totals nine cents—an increase of 50%. On a national average, this is 42% of the retail price of gasoline—an excise tax rate more than four times that imposed on so-called "luxury" items such as jewelry, fur coats and luggage.

What is the oil industry's attitude towards such a high level of taxation on a low-priced product?

No one likes to see his chief product subjected to high tax rates, nor does he care to serve as an involuntary (and, in most cases, unpaid) tax collector. However, the oil industry has taken the position that it should not oppose taxes upon gasoline provided that (1) the tax level does not become so high that it will adversely affect the sale of gasoline, and (2) the tax revenue is devoted to highway purposes.

States Use Gas Tax for General Expenses

Twenty-seven states have adopted constitutional amendments to prevent diversion of gasoline taxes. However, some of the remaining states use large amounts of gasoline tax revenues for general expenditures not in the least connected with highways.

As we have just seen, Federal gasoline tax collections between 1932 and 1956 were used as general purpose funds. In the latter year, the rate of gasoline tax was increased from two cents to three cents per gallon and earmarked for the Federal Highway Trust Fund. This Fund would, it was planned, defray the cost of an ambitious new program of Federal assistance to highways.

The so-called Interstate System, to provide about 40,000 miles of linked expressways across the country, was scheduled for construction over a 13-year period, 1957-1969. Its cost in 1956 was estimated at \$27 billion, about \$25 billion of which was to be provided by the Federal Government out of the Highway Trust Fund.

By 1958, cost of the Interstate System had been revised upward (because of increased construction costs and the addition of features such as more lanes of highway and more exits and entrances) to a total of \$40 billion, \$36 billion of which would have come from the Highway Trust Fund.

Planned Expenditures Exceed Trust Fund

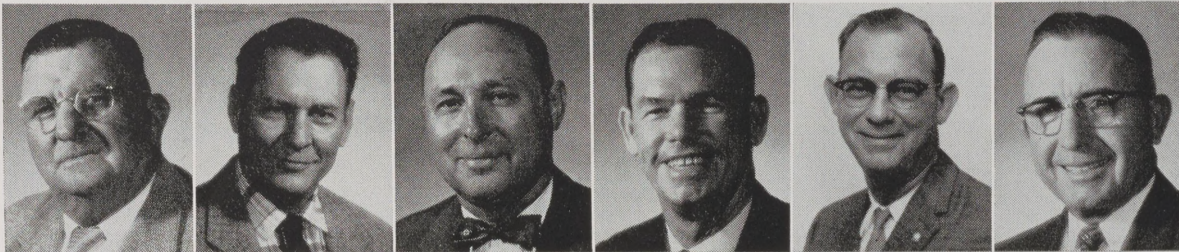
Also to come from the Highway Trust Fund is the Federal Government's share of the so-called ABC highway program—improvement and modernization of 78,000 miles of federally-aided state roads. This program, in existence since 1916, is paid one-half by the Federal Government, and one-half by the states. During the 13 years 1957-1969, the Federal share of the ABC System is estimated at some \$13 billion.

The Federal Highway Trust Fund as currently set up will not provide enough revenue to meet these large outlays. To provide the extra money that will be needed, Federal authorities are proposing an increase in the Federal tax on gasoline by 1½ or 2 cents per gallon.

The oil industry looks with apprehension upon an increase in the Federal gasoline tax rate of 50% or more, and points out that anticipated deficit in the Federal Highway Trust Fund can be made up by utilizing revenue from existing taxes on highway users.

Gasoline taxes are not the only taxes collected by the Federal Government from those who use the highways. The 10% excise tax added to the prices of automobiles, trucks and buses yields more than a billion dollars a year. In addition, there are Federal taxes on automotive parts and accessories,

20 Years Service



W. H. Dennis (Refy.) Eng. Services (Refy.) D. D. Galloway (Refy.) Eng. Services (Refy.) C. Hargrove (Refy.) Eng. Field (Refy.) R. J. McCarthy (Refy.) Eng. Services (Refy.) C. W. Seyer (Refy.) Eng. (Chem.) J. M. Willard (Refy.) Eng. Field (Refy.)

Phenol—

(Continued from Page 1)

Engineer, for which there is a patent pending.

The installation of piping has just begun. These pipes will carry steam and benzene from the Refinery to the Phenol Plant, utility service and

feed, and acetone destined for R, A, and G Departments. Acetone is a by-product of bisphenol production.

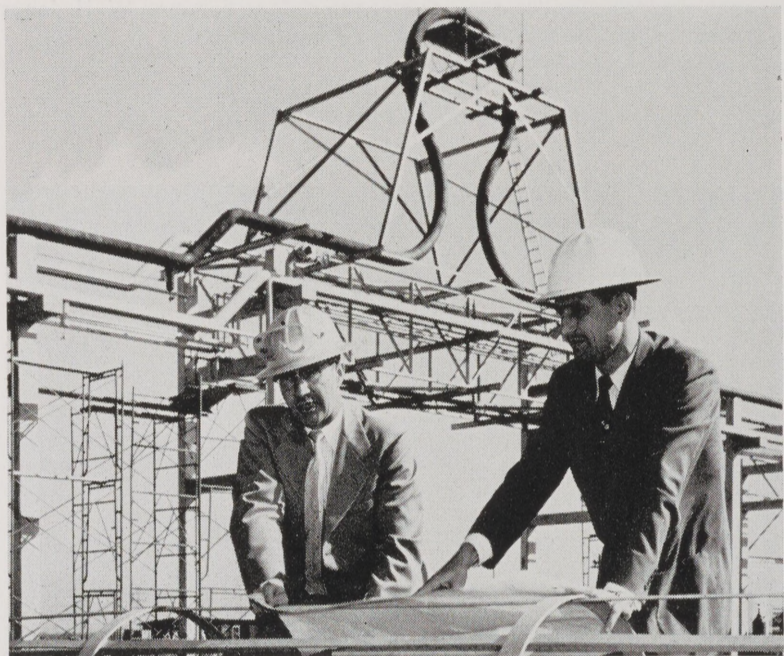
The rail spur located on the west side of EPON Resins Warehouse No. 2 has been extended about 290 feet to allow contractors working on the project to unload materials and equipment.

Road construction in and around the plant has been hampered by recent heavy rains. When the ground dries, contractors will begin the work of extending East 5th Street, North 19th Street and new streets in and around the new plant.

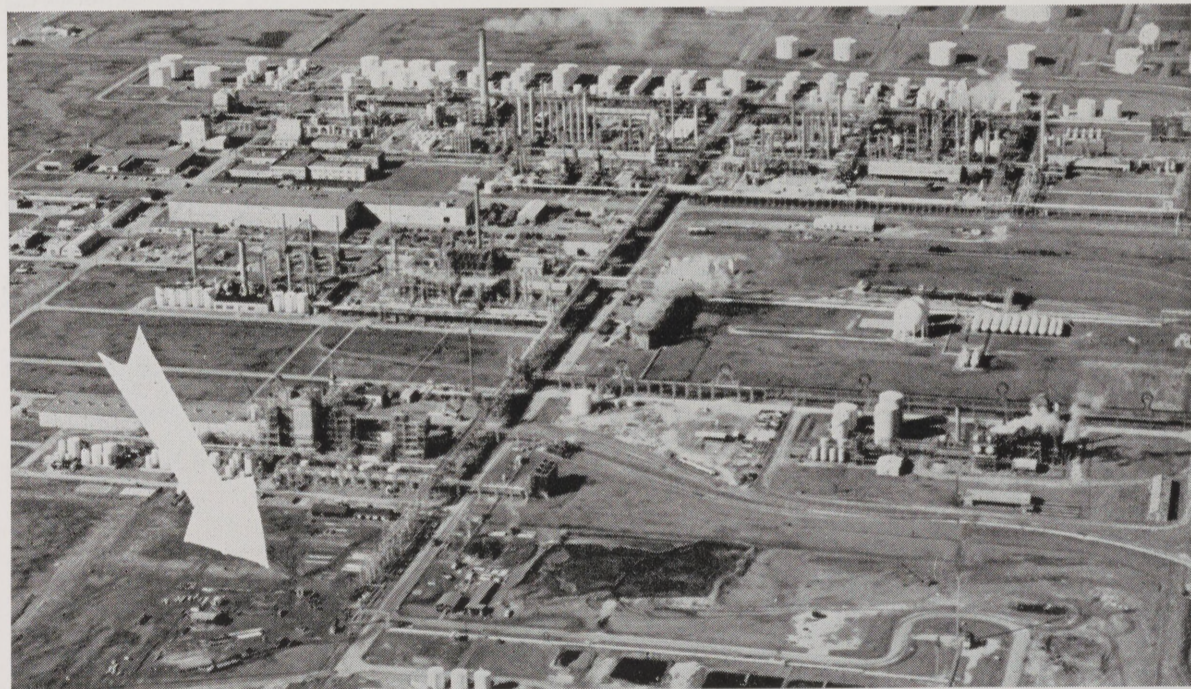
As the work on the project is in two distinct phases, off-site facilities and process unit, the work done by Gasperi and LaCour will end at the boundary line of the process unit. From this point Project Engineer L. S. Alpert and W. A. Scruggs, Assistant Project Engineer, will supervise construction of the Phenol process unit.

The latest method for engineering design has been used for this plant. A scale model, complete in every detail, of the plant has been made. This affords the engineers responsible for construction an unusual insight into what will be the finished product. It also eliminates the need for great numbers of detailed drawings.

If any changes are made in design, these changes are transferred to the model. The model was made by the Kellogg Construction Company, builders of the process unit.



OSCAR LaCOUR, left, and Ray Gasperi check blue prints of off site facilities for phenol unit. In background stands newly erected concrete pipe supports. Some pipe is already in place. Most noticeable is steam line and expansion loop.



AERIAL VIEW of Chemical Plant shows location (arrow) of Phenol unit site. Phenol is a basic ingredient in production of EPON® Resins. EPON Resin unit No. 2 and No. 3 are located across street from phenol unit.

tires, tubes, retread rubber, diesel fuel, lubricating oils and truck use.

The oil industry has pointed out that no new Federal taxes on gasoline will be necessary, if these taxes on highway use now being collected are devoted solely to highway purposes.

Proposals are now current in about half the states to increase their gasoline taxes, for one or both of these purposes: (1) to help meet operating deficits, (2) to provide matching funds required as their share of the Federal highway programs.

If these proposed taxes are passed, the average motorist will pay tax equal to half—or more—of the retail price of gasoline.

Is this too much?

Common sense tells us yes, if the increased tax raises the total price of gasoline to where motorists cannot afford to buy what they need, or if the increased tax depresses the sale of gasoline to a point where the total revenue is less than what would have been raised by a lower tax on a larger volume of sales.

How high do gasoline taxes have to be to cut into sales? Nobody knows precisely—but it is a safe bet that we are already near the danger point.

Who's New REFINERY

- Jan. 19—Peggy Sue, daughter of Mr. and Mrs. M. E. Slaten, Lube Oils.
- Jan. 22—Patricia Doreen, daughter of Mr. and Mrs. R. M. Armstrong, Treasury.
- Feb. 7—Robert Gordon Louis Hill, son of Mr. and Mrs. R. G. Hill, P&IR.

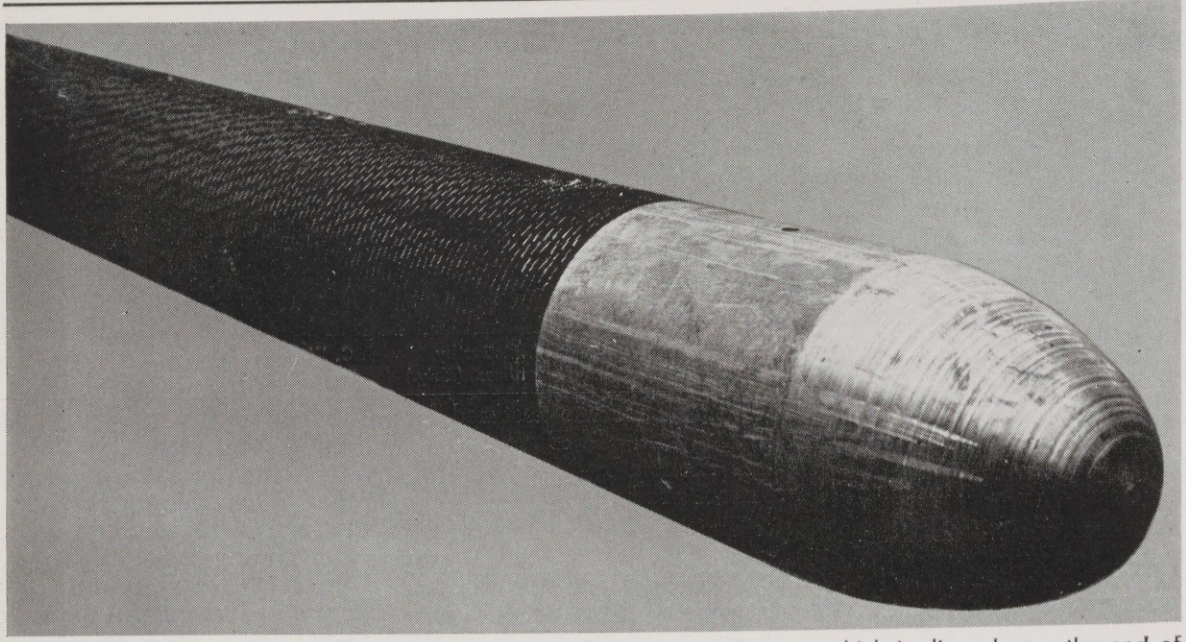
10 Years Service CHEMICAL

- N. A. Carrier, Shipping
- J. H. Collier, Shipping
- H. A. Hallonquist, Engineering
- D. P. Larson, Eng.-Dev.
- E. R. Roach, Engineering
- P. G. Sparr, Engineering
- J. A. Taylor, Engineering

REFINERY

- R. R. Russell, Research

The Big Shutdown Takes a Big Effort



THE BULLET—That's the appropriate name given to the metal nose cone which is slipped over the end of each tube to help ease it damage-free into the furnace at the Cat. Cracker. The use of this device for the first time on the January shutdown is just one example of the way in which new tools and methods are constantly being developed to make each shutdown easier, quicker and safer. Zone Foreman W. H. Jones was the man responsible for the development of this particular and valuable improvement.

Plans are now being made for the next Cat. Cracker shutdown.

This may sound strange since the big unit just went on stream Jan. 31 for what it is hoped will be a two-year run but the many persons who are responsible for these shutdowns know that an orderly procedure does not just happen—planned.

So, planning for the just-finished 1959 turnaround began back on May 6, 1957, when feed was cut into the unit to start catalytic cracking run No. 15. On that day engineers and metallurgists started making plans for work that would have to be done when the run was over, even though that date, it was hoped, would be from 18 to 24 months away.

Reports were written, telling what had been done during that turnaround, giving the facts on equipment inspections, stating what would be done next time to assure a smoother and reporting on the equipment that would need to be repaired based on calculations of anticipated life. After the turnaround proceeded for about a year, work on the coming turnaround was intensified.

Memorandum Lists 150 Jobs

Operating experiences gave rise to ideas for improvements on the unit. Changes in operating conditions were suggested which would require new equipment to be installed.

In July, 1958, a memorandum from the Catalytic Cracking Dept. to Engineering Field listed 150 jobs which would have to be done during the shutdown. In the meantime, Engineering Inspectors had written a memorandum to the operating department, listing work which, based on their records, would have to be accomplished during the turnaround and listing all equipment which they would want inspected.

By late November, the shutdown date had been definitely set for the first weekend in January, 1959. This date was chosen not only with regard to the condition of the Houston Cat. Cracker, but also to tie in with the shutdowns of catalytic cracking units at Wood River and Norco.

About this same time, a second memorandum to Engineering listed 42 additional jobs which would have to be done during the turnaround. Area Supervisor C. F. Williams studied these memoranda and translated them into a schedule for Engineering craftsmen. Meetings attended by operating and engineering personnel provided assurance that everyone understood what was to be done, and that nothing had been overlooked.

All during December the Engineering Department stored piled equipment and supplies in the field beyond the unit. In the final week before the big job itself they began to move desks, a public address system, portable tool rooms and phones to make certain the work would be done efficiently and that everything would be well coordinated.

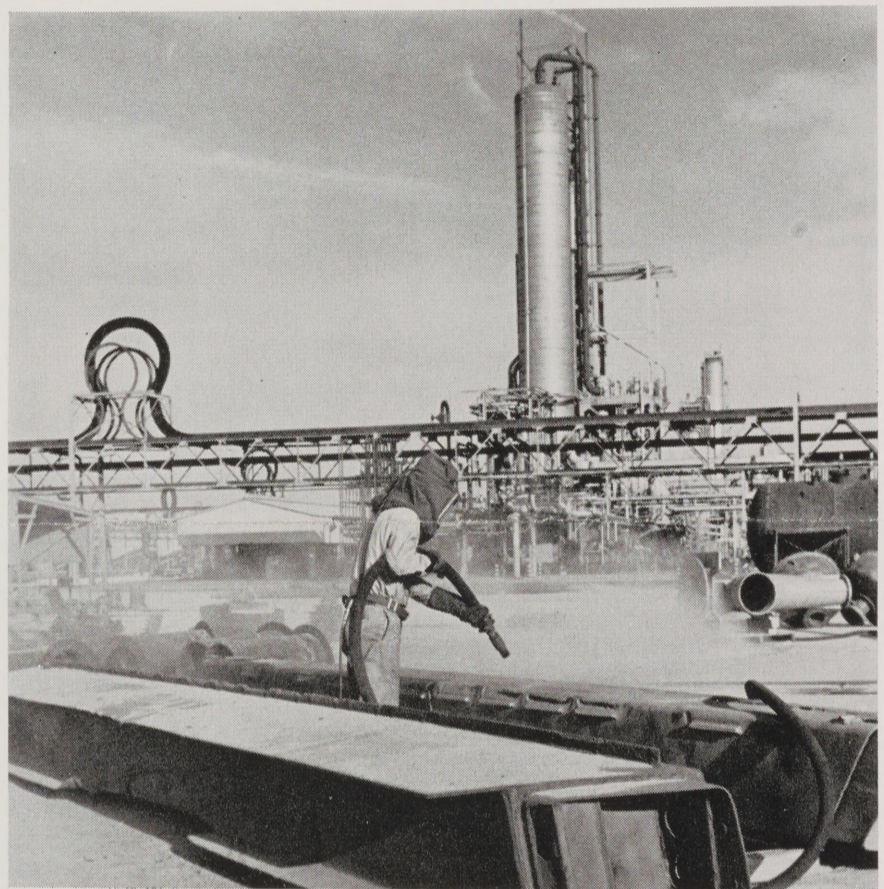
Feed Handling Arrangements Necessary

During this same period, the operating department had to make arrangements with other departments to store the 40,000 barrels of feed which would ordinarily run through the Cat. Cracker each day. Shell Chemical was also involved, since the lighter products produced on the Cat. Cracker serve as raw materials. Their operations would have to be altered during the time the Cat. Cracker was down.

At 4 p.m. on Jan. 3 everything was in readiness. Feed to the unit was slowly reduced and by midnight had been completely cut out, thus bringing to an end a run of 14,590 hours or more than 608 days. This Cat. Cracker run set a new record at the Houston Refinery.

At this time the unit still contained 650 tons of catalyst and some of the equipment remained at temperatures of 1,150°F. Before it could be safely turned over to the Engineering Dept., this catalyst had to be removed and the vessels had to be cooled.

All day Sunday and most of Monday were spent in removing catalyst from the unit. Of course, during this time

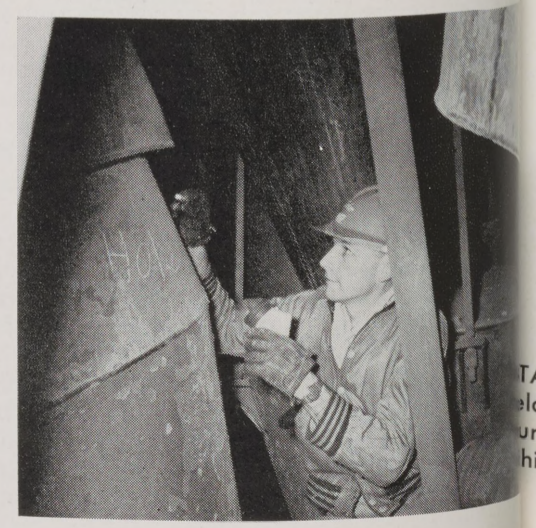


NOT A HOODED MONSTER, but an employee of the Refinery Paint Dept. uses the sand blasting technique to remove rust and other corrosion from grid beams prior to their being repaired for reuse.



ANOTHER FURNACE TUBE is ready to be pulled into its slot as Boilermaker No. 1 E. G. Suhr removes the strap which was used as a cradle to lift the long tube into position. Removing, replacing and repairing these tubes is just one of the many jobs which must be accomplished before the Cat. Cracker can go back on stream.

GETTING RIGHT INSIDE the Cat. Cracker is a necessity for many persons during a shutdown. Inspector R. F. Tucker Jr., for example, seems to be in pretty close quarters between the cyclones in the reactor as he chalks repair instructions on the equipment. Hundreds of such inspections must be made of every piece of equipment to determine where and exactly what repairs are needed.



TANDING
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Planning for Next One Is Already Underway

jobs could be accomplished. The main fractionator was steamed and water washed; all lines and various accumulators were purged with inert gas so that they would be safe to open, and blinds were installed between various units, so that each unit would be isolated from the others.

By late Monday afternoon everything was in condition to be turned over to Engineering. The vessels were opened up and scaffolds were raised in the reactor and the regenerator so that the cyclones and walls of these vessels could be safely inspected and maintained. Plans had been laid to make major revisions to the regenerator stacks, so welders were sent into these stacks immediately to cut out material and make room for revisions.

Unit Looks Hurricane-Struck

Within several days the entire unit looked as if it had been through a hurricane. There were parts of the Cat. Cracker lying everywhere. The auxiliary stack on the regenerator had been taken down and both catalyst recycle risers had been removed to the Shop.

During this period the main fractionator was acid-cleaned. Cranes were busy moving exchanger bundles off the structure and to ground level where they were inspected and acid-cleaned or retubed, depending upon their condition.

Day and night during the entire shutdown, seven days a week, men swarmed over the giant piece of machinery like ants on their mound of earth. The many craftsmen from every shop who were busy at the unit itself represented only a portion of those working on this turnaround, because many more in the bee-hive-busy Central Shops were efficiently working on some piece of detachable equipment.

Working along with the craftsmen was another small army of supervisors, inspectors, engineering specialists, material expeditors, time keepers, safety inspectors and even photographers.

Gradually things around the Cat. Cracker started to look normal as jobs were completed and pieces of equipment came back from the Shop. This job of accounting for, transporting and repairing the equipment that had to be taken from the unit to the Shop and then back again was one of major size in itself. A total of 463 separate items was logged out of the unit area to the Shop, and every item eventually got back into its place in the unit, thanks to these well planned material control procedures.

Improvements Include New-Type Tray

The improvements made on the unit during this turnaround included the installation of a new type of tray in the fractionator to improve product quality. Fin tubes were installed in the convection section of the furnace in order to realize more heat from the fuel gas.

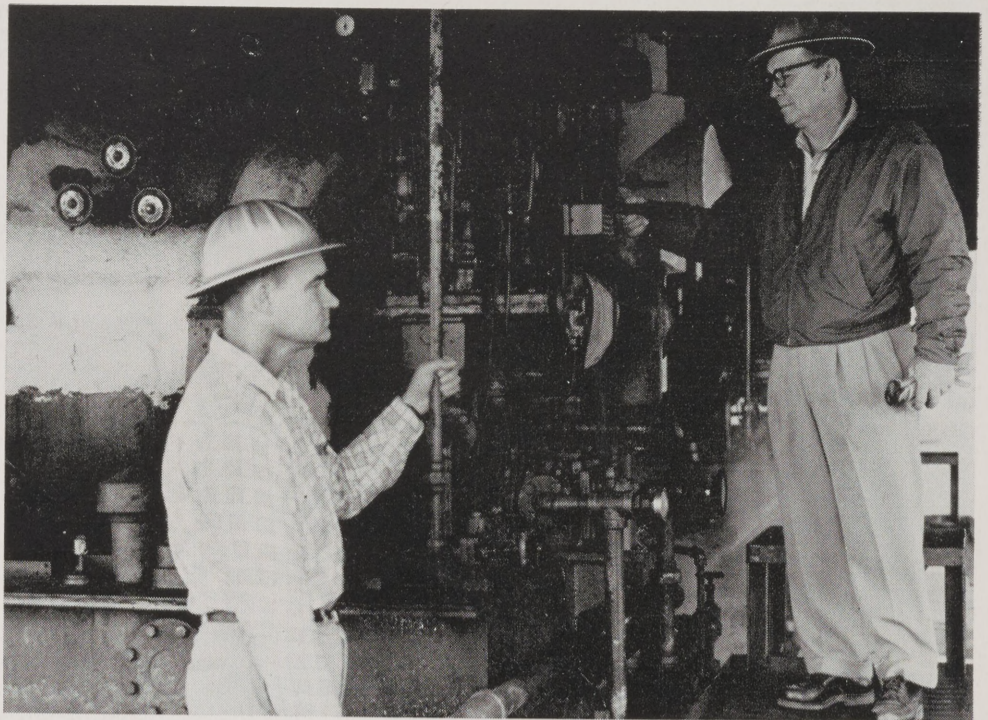
Changes were made to the blowers so that they could be run at a higher speed. The auxiliary stack was replaced in part and was extended three feet, making it as tall as the main stack. Revisions were made to both stacks to reduce the noise level.

All during the turnaround, operators were also busy on the unit, showing craftsmen where jobs needed to be done and where the equipment that had to be worked on was located, inspecting work after it was finished, and seeing that all equipment got back in the proper place.

At 9 a.m. on Jan. 29, the Engineering Department said the job was finished and returned the unit to the operating department. After a thorough check and pressure test of the equipment, the 650 tons of catalyst, which had been removed when the unit came down, were started back into the unit.

As was to be expected, some problems were encountered, but at 2:15 a.m. on Jan. 31, feed was once more cut into the unit.

Employees coming to work later that morning once again heard a familiar sound. But the loud pre-turnaround roar of the big Cat. had been transformed by the general overhaul and the specific alterations in the stack into something more closely resembling the contented purr of a giant kitten.



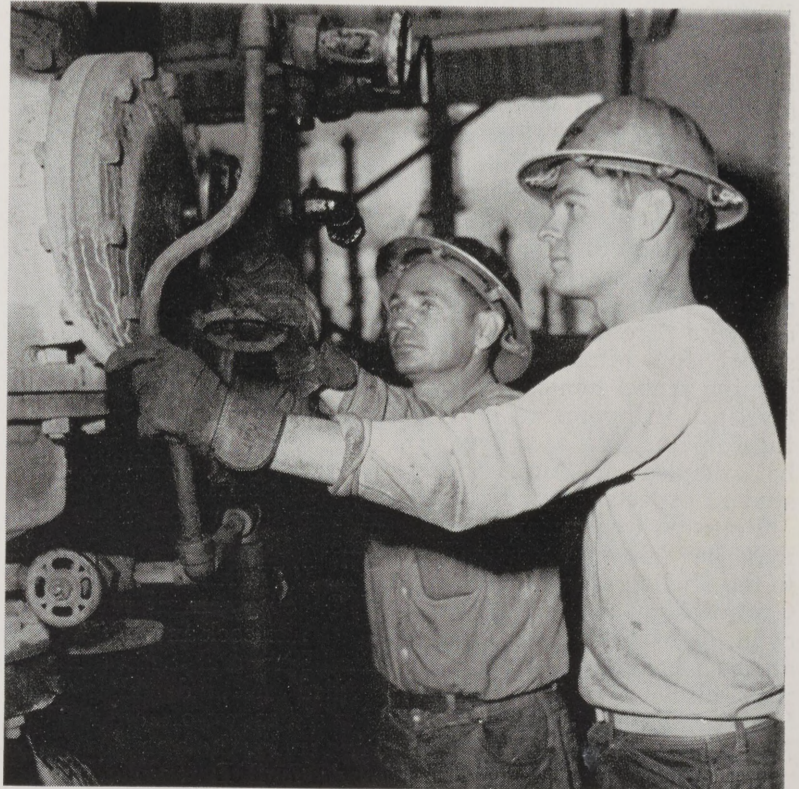
NO. 1 OPERATORS H. F. McFall (right) and T. H. Cochran make an adjustment in the operation of the blowers at the Cat. Cracker shortly after the big unit went back on stream. Changes made in the blowers meant that Operators had to keep a close eye on their operation during the first few days after the start-up.



BURNING AWAY DAMAGED portions of grid beams is one of the many jobs the Welding Shop handles during a Cat. Cracker turnaround. Here F. L. Shoemake (left) and J. L. Dykes, both No. 1 Welders, work on one of the mutilated beams, getting it ready for replacement of the damaged portions.



STANDING ON YOUR HEAD is recommended by some yoga experts for relaxation, but it is also sometimes a necessity in order to get a job done during a turnaround. Here T. C. Cardwell, Machinist No. 1, drives a wedge while under the close scrutiny of Machinist Helper No. 1 I. E. R. Crofoot.



REPRESENTATIVE OF craftsmen working on the Cat. Cracker turnaround are L. A. Farris (left), a No. 1 Pipefitter, and R. M. Loy, a No. 1 Pipefitter Helper, seen working on a pump.

Miller Moving To Gas Dept.

J. E. "Joe" Miller has been named to fill the newly-created position of Operating Assistant in the Refinery Gas Dept. effective March 1.

Miller has been working in Industrial Engineering since 1953. His Shell career started on Sept. 3, 1936, when he came to work as a General Helper.

He moved to the Gas Dept. in June, 1937, as a Gauger in thermal gas recovery operations. He helped start the high pressure absorber in 1938 and went to the poly gas side when the alkylation unit began operations in 1939. In 1945 he was named Shift Foreman and eight years later joined Industrial Engineering.



J. E. Miller

Shellegram Is Seeking Pics Of '59 Grads

Is there a prospective high school or college graduate in your family this year? Would you like to see his or her picture in the Shellegram?

This year, in the June issue, the Shellegram will print 1959 graduation pictures of the sons and daughters of all Refinery and Chemical Plant employees. All employees who have sons and daughters graduating either from college or high school at mid-term or in May this year are invited to supply the Shellegram with a photo of the student and biographical information.

Pictures may be of any size. Black and white glossy prints are preferred, but colored pictures can be used. They may be in cap and gown or in street clothes. Do not write on the backs of the photographs.

Information to be submitted with the pictures should include the full name of the student and parents, name of the school, full information concerning school honors and activities, information about future plans such as college to be attended or employment student expects to pursue.

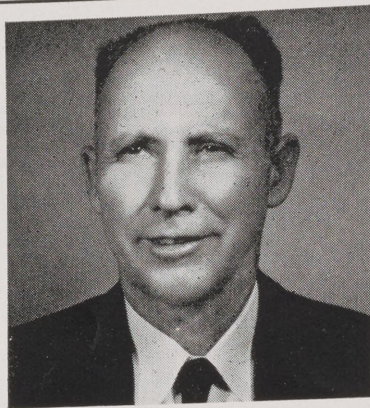
Pictures and information may be delivered personally to the Shellegram office in the Central Shop at the Refinery or in the Main Office building at the Chemical Plant. They may also be mailed to the Shellegram, P. O. Box 2527, Houston 1, Texas.

The deadline for receiving photographs is Friday, May 29.

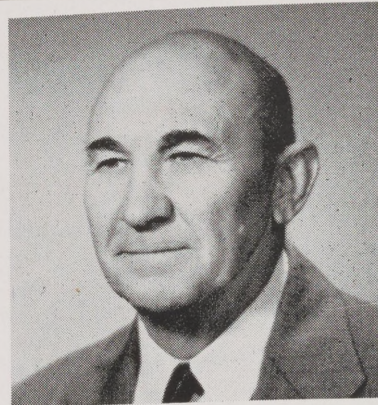
All photographs submitted will be returned unharmed.



H. F. Ireton



M. S. Newman



F. O. Roberts

Refinery Retirements Announced Of Ireton, Newman and Roberts

Three Refinery employees representing more than three-quarters of a century of Refinery service punched out for the last time recently to take up life as Shell pensioners.

Retiring effective February 1 were H. F. Ireton, M. S. Newman and F. O. Roberts.

Ireton, a Pipefitter No. 1, departed the active employ of the Company with more than 24 years of accredited service. He came to work at the Refinery as a Laborer on March 10, 1934, and after a short period of working in Cracking Cleanout moved into the Pipe Shop in May, 1935.

He spent the remainder of his Shell career in the Pipe Shop. Beginning in 1945, he often served as an instructor in the pipefitting craft for classes conducted as part of the craft training program.

A native of Dewey County, Okla., Ireton received much of his education after coming to work for Shell. For eight years he went to night school at the Pasadena and San Jacinto High Schools, Taylor Vocational School and the University of Houston where he took two years of work in mechanical engineering.

Ireton's retirement plans include a good deal of travelling

and a consulting job with a Houston autoclave and sterilizer service company.

Newman, a Garage Mechanic No. 1 in the Refinery Automotive Dept., accumulated some 29 and one-half years of accredited service before retiring.

He first came to work at the Refinery on Aug. 13, 1929, as a Spray Man and worked in various phases of the painting craft until November, 1931. At that time he joined the Automotive Dept.'s mechanical group and was employed there for the remainder of his career.

Born in Kenedy, Texas, Newman attended Berclair High School. His retirement plans include the operation of a tourist motel near Huntsville.

Roberts, who was an Opera-

tor No. 1 in the Lubricating Oils Dept., became a pensioner after accumulating more than 22 years of accredited service. He was first employed as a Truck Driver No. 2 on Aug. 22, 1936, moving to the Cracking Dept. in June, 1937, and working there most of the time until May 31, 1948, when he was selected to help operate the newly-opened lube oils facilities. The remainder of his career was spent in this work.

Born in Walker County, Texas, Roberts was graduated from Bedias High School and attended Sam Houston State Teachers College. He taught school for about five years before joining Shell.

Roberts recently purchased a small farm near Huntsville where he plans to raise a few vegetables and a little livestock.

Shell Tailors Lubricants For Supersonic Flights

Shell Development Company scientists have succeeded in producing advanced lubricants for supersonic flight by aircraft or missiles that can withstand both nuclear radiation and a wide range of temperatures.

The lubricants were developed after several years of intensive research for the Air Research and Development Command of the U. S. Air Force. They are made basically from benzene, a petroleum derivative, and oxygen from the air, and are called polyphenyl ethers.

Development of materials that can stand both the extreme temperatures of supersonic flight and severe doses of radiation is essential for construction of highspeed jet aircraft and missiles. The Air Force described the new lubricant as a major advance in this direction.

The ethers also show promise as nuclear reactor coolants, hydraulic fluids, and base oils for greases.

The Shell scientists found that certain polyphenyl ethers remained stable under conditions of radiation exposure and high temperature. These components were then tested to determine which possessed the necessary lubrication and physical properties.

Results showed that the new lubricant could resist heat decomposition to temperatures of over 800 degrees Fahrenheit—an increase of more than 200

degrees over present lubricants. It could also withstand more than five times the amount of radiation possible for standard lubricants, and it remained stable to oxidation at temperatures up to 600 degrees Fahrenheit—another advance of more than 200 degrees.

Development qualities of the ethers are still undergoing laboratory tests at Emeryville. The discovery marks another significant advance in Shell's research program to develop fuels and lubricants for the Space Age.

Working on the research project at Emeryville were Research Supervisor E. R. Barnum; Chemists C. L. Mahoney, W. W. Kerlin, and W. S. Saari, of the Lubricants General Department; K. J. Sax, Organic Chemistry Department; and C. D. Wagner, Chemical Physics Department.

25 Years Service



J. E. Daigle Eng. Field (Refy.) W. B. Miller Eng. Field (Refy.)

4 Employees Take First Aid Training

Realizing the importance of first aid training in an emergency, four Refinery employees recently took a course in this subject on their own time.

A. J. Norrix, Electric Shop; M. G. Crosby, Insulation Shop; H. M. Hancock and W. G. Cannon, Fire and Safety Dept., studied the standard Red Cross first aid course offered in Deer Park under the auspices of the city's Civil Defense organization. Course instructors were L. E. Waters and Hank Rawson.

Houston-Norco '34 Plant Day Remembered

Do you remember the annual Plant Day competition between the Houston and Norco Refineries that took place in 1934?

The story from the pages of the *Shell Shock* of Sept. 1934, reads like this:

"The Shell Oilers of the Houston Refinery are the ball champions of the Southern Division for 1934.

"Aha! What a ball game! What a series! The 1934 meeting of the Norconians and Shellites in Houston was one of the most thrilling and contested series in the four-year history of the annual series.

"After holding the Louisiana team to three hits on Saturday, Sam Costa, the Oil ace, came back with only a day's rest and limited the Norco boys to five hits and an unearned run on Labor Day.

And... "The Houston aid team enjoyed a sweet victory over the Norco team in the Plant Day program Sept. 1, 2 and 3.

"The Houston aggregation consisted of J. R. Vawter, Captain, Don Wilson, Hous. Cammack, Claude DeWitt, George Blanyer and Q. Davis (patient). These were picked by P. E. Keen from employees of the Refinery..."

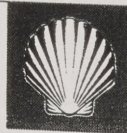
And... "The Labor Day barbecue must have been a successful party—nobody remembers what happened."

"Anyway, the farmers, rain and the fish need water and the barbecue had the sequent mud. Much vict and drink were dispensed and we'll make a little water warmed many stomachs..."

And... "The trouble is rain washed out the ten matches with the score of singles tied while only played, and with so little the doubles matches played that it could have been anybody's game."

"On Saturday, Pat allowed Norco the first by dropping his match to Alter 7-5 and 6-3, while bee Allen of the Houston fice evened the score by nung from M. W. Levy, 6-4."

An average of one was accidentally injured 16 seconds in the United during 1957, according to National Safety Council.



shellegram

SHELL OIL COMPANY HOUSTON REFINERY SHELL CHEMICAL CORPORATION HOUSTON PLANT

JAKE KOBLER, Editor
(Refinery)

R. L. BURGET, Associate Editor
(Chemical Plant)

Staff Photographers: Sam Davis, Al Locke

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Shift Workers Enjoy Morning Bowling



RIGHT DOWN TO THE WIRE goes this game as Shell Shift League bowlers keep a close eye on the alley and the score sheet. Seated are E. C. Harris and J. L. Banks, both of Thermal Cracking. Those standing are N. M. King, Thermal Cracking; team sponsor Jimmy Matthews; N. J. Ellis, R. E. Nix and B. J. Newman, all of Treating, and H. W. Warren, Thermal Cracking.

Do you like to bowl at 8:30 in the morning?

If so, and you don't have to be at work every day at that time, there can be a spot for you in the summer version of the Shell Shift Workers Bowling League. Eight teams strong, this league now performs in the Pasadena alley each Tuesday morning.

Bowlers in the current league think their arrangement is such a success they are looking for more shift workers to join them for a summer league and for another full-season league next fall.

Men who, because of working daylight, cannot attend on Tuesday morning report to the alley on Monday night to roll their games. Then the morning bowlers pick up the same score sheets and complete the team competition.

Six of the eight teams have sponsors who purchased shirts and pay \$1.50 a week into the prize fund which will be used to purchase trophies at the end of the season. These sponsors include Kennedy's and Wilson's Shell service stations.

President of this unique league is J. A. Stevens of the Refinery Utilities Dept., while A. W. Gore, Gas, is vice president and E. C. Harris of Thermal Cracking is secretary-treasurer.

Up to the final bowling date in January, G. T. Haney of the Treating Dept. had bowled the highest series with a 570 while T. C. Burke, Thermal Cracking, had the highest game with a 223.

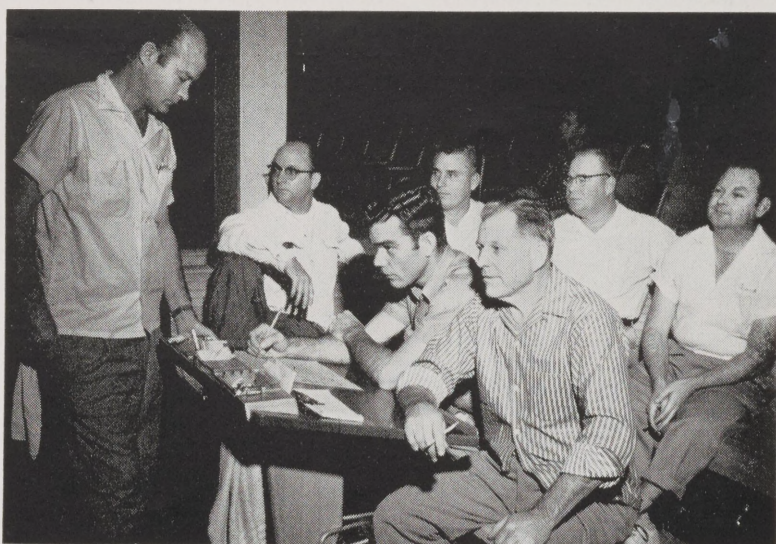
Anyone interested in joining this group during the summer or next fall is urged to contact one of the officers of the league.

All matches are overseen by a qualified referee who counts out points to judges standing by or rules on whether a pin has been scored.

In Jimmy's first match in the YMCA tournament, he suffered an early point loss for being taken to the mat. However, it wasn't long before he had freed himself, forced his adversary's shoulders to the mat and was declared winner. Before leaving the ring, both boys shook hands and then returned to their respective teams.

It's amazing to watch Jimmy and his teammates transform from normal young boys full of energy and mirth to eager combatants who give and ask no quarter. But this is what makes champions and this is just what Jimmy and his teammates were as they bested other teams to win in the junior division. The senior division of this team placed second in the tournament winning over several Southwest Conference schools.

Something other than being



CHECKING HIS SCORE, while the rest of the bowlers intently watch the action on the alley, is J. A. Stevens, Utilities. Seated at the score table are J. H. Churchwell, Utilities, and D. E. Howard, Boilermakers. Along the bench in the back are R. L. McGraw, S. W. Woods, T. C. Bourke and F. M. Thomas. Bourke works in Thermal Cracking, and the others work in Utilities.

Jimmy Selby Helps Team To Wrestling Event Title

Wrestling is one of the oldest sports known to man. From its inception and throughout history it has been a sport requiring strength, agility and endurance.

In more recent times the notables of the wrestling world are better known for their acting ability than for their fighting skill. There is one area in which the tenets of this age-old sport are proudly maintained. It is in the world of amateur wrestling. Participating in this sport are young boys and college students willing and ready

to pit their skills against all comers.

Into this aura of sour-smelling gymnasiums, overtone with the pungent odor of liniment and alcohol came Jimmy Selby. Jimmy is the son of J. W. Selby, Jr., Shell Chemical Sales in Houston.

Jimmy has only been wrestling for a short time and already has amassed a string of five wins and one loss.

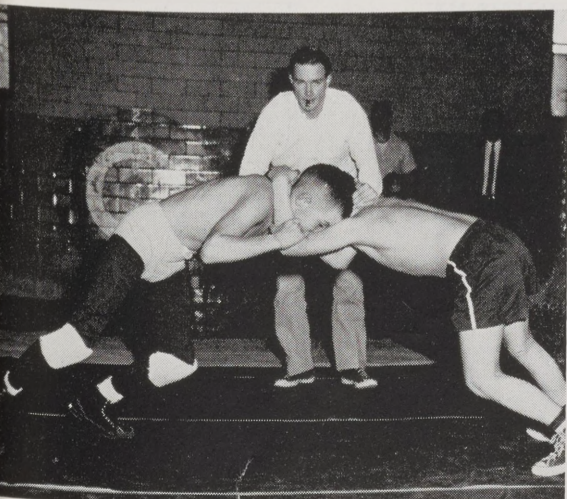
In a recent tournament Jimmy in one day won three matches to help his team to the YMCA title in Houston and first place in the 105-lb. junior class for himself. Jimmy weighs close to 100 pounds, is 11 years old, stands about 5 feet, 2 1/2 inches tall and possesses an unusually strong pair of hands.

Watching young boys straining and sweating for the victor's laurel wreath offers moments of real excitement. Although these matches are usually devoid of moans, groans and mat pounding you find no less enthusiastic cheering for a favorite.

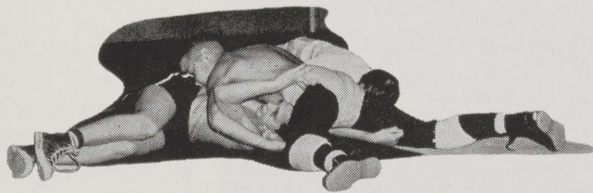
The rules of amateur wrestling, as set forth under NCAA and AAU, insure that no one is permanently injured, for punishable holds are not allowed. A match can be won by either pinning an opponent to the mat for three seconds or by out-pointing him. Points are given for such things as taking an opponent to the mat or freeing oneself from a hold.



J. W. SELBY stands by as his son Jimmy weighs in prior to competing in day's events.



TRAINING FOR leverage and position Jimmy and opponent have just been given the go signal from referee in background.



JIMMY, ON TOP, is in process of pinning opponent's shoulders to mat. Referee, just behind boys is checking to see if shoulders are down before he begins the three second count.



TAKING A BREAK for the photographer at one of their recent Tuesday morning bowling sessions are (back row) J. M. Hall, A. W. Gore, G. A. Havens and I. W. Land, all of the Gas Dept. In the front are D. F. Samuelson, Refinery Lab; B. C. Hayes, Treating, and A. L. Eaton, Utilities.

Golfers Play on Thin Ice

Fifty-eight golfers braved an ice-covered course to play in January's SERA golf tournament. According to golf chairman Toby Essary of the Chemical Plant, golfers actually were forced to spend time scraping ice from their shoes.

good wrestlers sets this group apart. All of the members are blind and wrestle for the Texas School for the Blind against normal-sighted opponents. These young boys and young men are being taught to overcome their handicap. And as far as this phase is concerned, they do an excellent job.

Although the weather was inclement, some better than average scores were registered. A low gross score of 77 was posted by J. W. Hyde, Chemical Plant Superintendent. Low net score of 68 was credited to Chemical Plant's E. P. Franzen, Manager, Engineering Development and W. V. Woodward, Engineering-Field.

As is the usual custom for monthly tournaments, golf balls were given to those with lowest scores. In the first flight, prizes went to Lee Jennings, Toby Essary, Grover Noonan, J. W. Hyde, Al Dugas, Tom Wisdom, J. C. Winter, J. W. Peters, V. J. Talley, and J. A. Tarbett, all from the Chemical Plant.

Winners in the second flight were Chemical's H. G. Sealy, Pete Turner, E. D. Stanley, A. L. Young, H. L. Butler, W. L. Tanner, D. D. Jones, and W. C. Morgan. From the Refinery, A. L. Stanfield, W. W. Amason, L. C. Dickey, M. K. Kopp, Bill Ashmore, J. V. Campo, and W. E. Rasco won prizes.

In the third flight, E. P. Franzen, W. V. Woodward, R. S. Cox, Jean Williams (only female entry), F. T. Carlson, G. C. Anderson, and D. G. Cooper all from Chemical won prizes. Also, J. E. Gaskill of the Refinery was a winner in this flight.



JIMMY STANDS between his father J. W. Selby (left) and Paul Boesch, noted wrestler and T.V. personality.

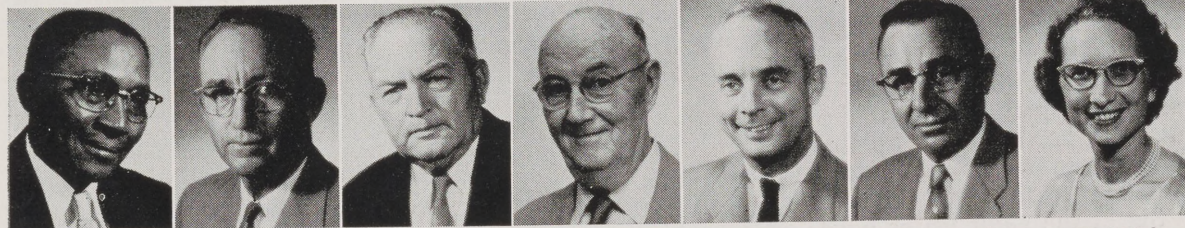
15 Years Service



H. L. Aston Eng. Field (Refy.) W. D. Ballew Eng. Field (Refy.) R. M. Bessire Opr. (Chem.) J. S. Brice Opr. (Chem.) F. C. Brooks Eng. Field (Refy.) I. L. Brown Eng. Field (Refy.) H. L. Carr Eng. Field (Refy.)



R. W. Coffey Research (Refy.) S. J. Cook Opr. (Chem.) L. G. Dudley Eng. (Chem.) J. R. Flower Eng. (Chem.) K. B. Jefferds Dispatch (Refy.) C. A. Nichols Eng. Field (Refy.) R. L. Payne Opr. (Chem.)



A. Roberts Eng. Field (Refy.) R. F. Sheppard Eng. Field (Refy.) W. E. Stagner Eng. Field (Refy.) D. J. Start Opr. (Chem.) C. F. Stebbins P&IR (Refy.) F. J. Svoboda Eng. Field (Refy.) A. E. Wright Treasury (Refy.)

Dredge Operation Results in Movement Of 175,000 Cubic Yards of Black Mud

Like to see some black, sticky, filthy mud?

Just take a trip down to the spoils area near Jones Lake by the Refinery Docks and look at the stuff that has been pumped off the bottom of the Refinery's slip during recent dredging operations.

Some 175,000 cubic yards of silt was pumped off the bottom by Kingfisher Marine Service's dredge Tyro. This 175,000 cubic yards is roughly equivalent to the amount of dirt that would come out of a hole 170 feet square and 170 feet deep.

The operation was designed to deepen the floor of the docking slip to 36 feet below mean low tide. Since this area averages about three feet of water above mean low tide, the slip will actually have from 39 to 40 feet of water in it at its lowest level.

Roy D. Plaisance, Project Engineer on this job, pointed out that only silt was removed from the slip at this time. No virgin cuts were made into the clay under the silt, he said.

It became apparent that the slip needed to be cleaned out again when soundings indi-

cated water as shallow as 22.8 feet existed in areas used by the large tankers. The slip was last dredged in 1953.

The Tyro sucked up the silt and water mixture from the floor of the slip 24 hours every day and pumped it through a snake-like, 12-inch discharge line into the spoils area. The flow from this small line was slow enough to allow most of the silt to settle out before the water flowed into the Ship Channel through a controlled spillway system.

Plaisance estimated that about three feet, nine inches of silt will be added to the entire pond area. In order to handle the raising of the silt level in this area, the dikes were heightened and evened off to provide for two feet of water above the expected final silt level, plus two more feet of dike as a safety measure.

Shell's slip fills up with silt at a relatively rapid rate, Plaisance explained, because the greater amount of activity in the channel proper keeps the water there so stirred up that the suspended material cannot

settle out. High tides move a great deal of this silt-laden water into the more tranquil slip, and the silt is then deposited before the tide moves out.

Stewart Aids E&P Program

R. A. Stewart of the Refinery Research Lab is currently assisting officials at Shell's Exploration and Production Lab by teaching a course in statistics.

The instruction in statistics is part of a 12-week school being conducted for 15 reservoir engineers from throughout the Shell organization and is concerned with the application of statistics to engineering problems.

Stewart, who has an M.S. degree from V.P.I. in statistics, teaches two hours weekly. He taught a similar course at the University of Houston last semester. A Research Physicist, he has been a Shell employee since Sept., 1956.

Employees on ACS Committee Aid School Chemistry Classes

Some 16 employees of the Chemical Plant and Refinery during the past few months have been helping to build good relations between high school chemistry classes and industry.

Working through the High School Visitation Committee of Southeast Texas Section of the American Chemical Society, these men visit various high schools in the Houston area to provide chemistry teachers and students with information about the field of chemistry, to give assistance when possible, and to help teachers and students see the actual role chemistry plays in industry.

Each Shell employee has been maintaining contact with one, or more, chemistry class during the school year, providing the students with information about the yearly examination conducted as part of the local section's scholarship program. Teachers are provided with information about the Shell Merit Fellowship program under which science and mathematics teachers may receive summer scholarships to Stanford or Cornell Universities.

They are also given information on the section's speakers bureau. Each school is asked to name the outstanding chemistry student, to which the ACS Section presents a certificate each year. These men also make themselves available for assistance on technical aspects

of class or individual projects during the year.

The Southeast Texas Section has received praise from ACS national group for this assistance to the schools. J. Lemerond of Chemical Plant Research is serving as district chairman this year. R. J. Clerc, Refinery Research served as chairman last year.

Other Refinery personnel taking part in this year's activities are M. L. Andre, E. Carlson, W. B. Jameson, J. Martin, Jan Samson and S. Slaymaker, all of Research and R. G. Eveld and L. Reeves from the Refinery Laboratory.

Serving in this activity Chemical Plant Research employees, in addition to Lemerond, T. L. Keelen, S. H. E. J. D. Schuren, G. B. Carr, D. B. Weaver, and J. H. Rochelle.

Chevalier Daughter Is Named to Office

Nealya Chevalier, daughter of Hilda Chevalier of the Refinery Treasury Dept., recently was named sales manager of the Junior Achievement Company sponsored by Ethyl Corp.

Mrs. Chevalier's husband, Neal is employed by Ethyl. The company manufactures and sells address markers for home lawns.

Researchers Named To ASTM Groups

Two Researchers were recently selected members of committees of the American Society of Testing Materials.

M. J. O'Neal was named member of ASTM Committee D-2, Research Division IV. C. Simmons became a member of the sections on liquid gas chromatography and was asked to serve as chairman of the latter section. O'Neal, formerly chairman of the committee on mass spectrometry.

Change of Beneficiary

If there has been a change in your circumstances, you named your Provisional Fund or Group Life Insurance beneficiary, you may wish to change your designation. If you wish to make a change in beneficiary, ask your supervisor how it can be done.



THE KINGFISHER Marine Service's dredge Tyro is seen in action removing silt from the Refinery's docking slip. The snake-like apparatus coming out the rear of the vessel is the discharge line which carries the mud and water mixture to the Jones Lake spoils area.

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