



# Shellegram

Deer Park Manufacturing Complex

Vol. 51, No. 3

March, 1986

## Shell complex adapts to tough times --

### Focuses on becoming oil and chemical leader

Complex Manager Hank Bettencourt pointed to recent capital expenditures and efficiency moves as proof of Shell's commitment to position its Deer Park complex ahead of competition in the refining and petrochemical businesses.

Bettencourt was responding to questions about Shell Deer Park's future in light of a continuing depressed oil and chemical market, and recent plummeting of crude oil and gasoline prices.

"Shell Deer Park has spent significant capital and employee effort to upgrade units and increase productivity, while at the same time reducing costs to position Shell as a leader in the oil refining and chemical industries," he said.

In the last few years significant capital dollars have been spent to improve yields

(production efficiency) and energy consumption, including the addition of computer controls at several major units. Also, significant capital dollars have been invested in improving reliability of process units. A great deal of technical effort has gone into numerous minor capital improvements to process units, as well.

As an example, Bettencourt cited a technical change in the process of the Cumene unit, completed this past summer, which helped increase yields of the Phenol Acetone Plant. Cumene is the first step in producing phenol and acetone from propylene and benzene.

Also, in late 1984, Shell completed an

crude which have lower costs.

But not all the effort has been spent on improving machinery. The Deer Park complex negotiated new electrical power and gas contracts last year which reduced fuel and power costs.

And the company and union have recognized and supported the need to increase employee productivity to remain competitive. A new Associated Maintenance procedure introduced in 1984 allows craftsmen to improve productivity by performing work related to their primary task for which they have the skills and abilities, but which previously may have been performed by a separate craft.

*"By improving employee productivity, reducing our costs and keeping our units running at a high stream factor, Shell Deer Park can survive these competitive times."*

**Hank Bettencourt**

extensive revamp of its Catalytic Cracking Unit (CCU), a major unit in the production of gasoline. The multi-million dollar revamp included energy conservation measures and modifications to allow the CCU to process heavier oils from thicker grades of

In 1985, the complex combined two separate work groups, refinery and chemical plant employees, into one larger work group, also giving the complex more

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## Johnson becomes complex superintendent

E. Gayle Johnson replaced Bob Slaughter as Complex Superintendent at DPMC effective April 16. In turn, Slaughter moved to Head Office to take over Johnson's job.

Johnson served as Technical Manager, Eastern Region, Refining and Marketing since 1982 before being named complex superintendent at the location where he began his Shell career 31 years ago.

Johnson joined Shell at the chemical plant in 1955 after graduating from the University of Texas. He worked in several jobs at Deer Park in both operations and technical assignments. In 1961, he transferred to Research and Development

at Emeryville, Ca. to work on the polypropylene project.

Johnson later was assigned to Woodbury, N.J. as part of the new plant start-up staff and worked in various management jobs there until a transfer as plant manager to Wallingford, Conn. in 1966. In 1968 he moved to Marietta, Ohio to start up a new polystyrene plant and on to New York in 1969 as Manager, Operations, Plastics and Resins Division.

Following relocation of corporate headquarters to Houston and several other operations/technical manager assignments in Houston, including Manager, Packaged Products in Oil

Marketing, Johnson was named Manager, Operations and Distribution for Shell Chemical in 1976 and Manager, Plans and Analysis for Shell Chemical in 1982.

Slaughter also began his Shell career at Deer Park's chemical plant. He started as junior chemist after graduating from Georgia Institute of Technology.

Slaughter has held a variety of technical and management positions at Shell locations in Louisiana and Oregon, as well as Shell corporate headquarters in New York and Houston. Prior to his most recent assignment at Deer Park, he was Manager, Plans and Analysis for Shell Chemical.

# Complex notches 1 million safe hours

Although employees recently celebrated a safety milestone, continuing first aid and OSHA recordable incidents are causing some "uneasy feelings."

Deer Park employees have suffered no lost time injuries this year, compiling one million safe work hours Feb. 28. Despite good early performance related to accidents which cause employees to miss scheduled work time, numbers of first aid and recordable injuries continue at a similar pace to 1985.

"It is good that we reached one million hours. We have done well," said B.T. Waggoner, manager of Health and Safety, "but I feel uneasy that the number of total injuries is not going down. Our goal is to not have anyone injured, not even through a minor incident.

"An incident is the same whether it is a first aid, recordable or lost time accident. The severity of the injury is a matter of luck," he said.

Waggoner said Deer Park employees made dramatic improvement in safety in the last five or six years, bringing incidents down from approximately 400 per month to 100 per month. However, in the last few years improvement has leveled off. "We are tracking at 90 to 100 injuries each and every month for the last three years," he said.

Waggoner urged employees to manage safety performance before an unsafe act or condition becomes a root cause of an injury. "Supervisors and managers must make sure employees get proper training, have safe procedures and understand the re-

quirements," he said. "Managers must also make sure safety performance gets proper emphasis, including audits to know when a safety system is not working well. (As an example, Waggoner indicated inspections are a safety management system and can turn up problems before incidents occur. Audits of the inspection system are necessary to determine that it is working properly.)

But the individual employee has the ultimate responsibility. "Employees must manage risks found in the workplace," Waggoner said. "The employee must accept that there is potential for accidents, and when given the proper tools, use

them, when given proper procedures, follow them, and when given safety gear, use it properly. That is the real definition of safety performance."

To commemorate the one million safe hour milestone, employees selected one of four gifts: an antique Shell gas pump telephone, a "two-in-one" jug and cooler, a vinyl carry bag or a first aid kit. Gifts are expected to be delivered by April 14.

Future safety milestones will be commemorated using the same format of selecting a gift from a collection of four. Each time the selection of gifts will change. Members of the Safety and Health committee recommend gifts to be included.

## Two join safety honor roll

Two DPMC employees recently joined a select honor roll for achieving more than 40 years of safe work.

V. C. Howell, Maintenance, and Leroy Rodgers, Engineering, were granted the Joseph A. Holmes award at a luncheon banquet. Both employees have worked more than 40 years in a field location without ever suffering a lost time injury.

In addition to certificates, Howell and Rodgers, and their wives, received gifts commemorating the event.

The Holmes award was established in 1916 to publicize and stimulate the safety movement to reduce accidents and ill health in industry. Shell Deer Park began involvement with the award 10 years ago. Since that time 57 DPMC employees have

joined the list.

A larger number of employees have reached the 30-year milestone recognized by the Holmes award. In 1985, 53 employees notched 30 years of safe work.



**SAFE AWARDS...**(Top) Complex Manager Hank Bettencourt, left, presents Leroy Rodgers a Holmes safety award certificate for reaching 40 years of safe work. (Bottom) Bettencourt presents V. C. Howell the 40-year Holmes safety award certificate as Howell's wife, Thelma, looks on.

## Dispatching Operations completes 5 years without a lost time injury

In a related safety story, Dispatching Operations completed five years without a lost time injury March 25. In addition to eliminating injuries which cause employees to miss work, Dispatching Operations also has reduced first aid and recordable injuries significantly since 1980. Dispatching suffered 98 first aid incidents in 1980 and 15 in 1985.

"Our success is the result of improved awareness of safety," said Willie Braggs, training coordinator. "Field personnel in Dispatching Operations particularly have improved their effort and made a significant contribution to the improving safety record."

Not only has the Dispatching group increased safety awareness, but the Logistics organization in general has heightened safety awareness through a number of programs.

Logistics has used employee audit teams to observe employees performing activities during the work process to see if any unsafe techniques are being used. If an unsafe act was observed, the audit team would stop the employee and offer proper instruction.

Additionally, after an accident occurs a supervisor meets with the employee suffering the injury to discuss the incident and identify the cause. This information is later

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## SCORA News:

# Family picnic and dance set on summer schedule

On the heels of a busy Spring, SCORA moves into Summer with three major activities planned.

The family picnic, SCORA's largest annual event, is on tap May 3 at Fun Fair Amusement Park on East Mount Houston Road. It is free for members; guests will pay a nominal fee.

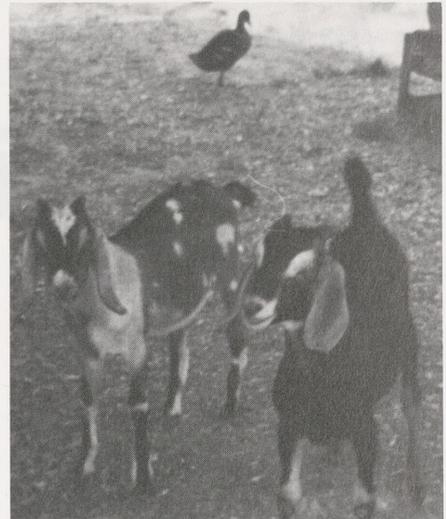
A barbecue lunch, refreshments and snacks will be available from morning to late afternoon to accommodate employees working shift. In addition to the food, employees can enjoy the park's swimming pool, carnival rides, baseball, volleyball and basketball facilities. There is also a 500-foot pavilion in case of rain.

The carnival rides include children's

rides. Special activities also include rafting and volleyball in the large pool, and a petting zoo.

The club has marked the calendar for future events, which include a summer activity dance June 28. Details will be available in the next **SHELLEGRAM**, or employees can call Jerry McDaniel, 6546.

Also on the calendar already is a Labor Day weekend camping trip to New Braunfels. SCORA has 25 reservations at River Valley camp grounds for Aug. 29-31. Members should call Hank Craddock, 6288 or 7926, or Juanita Batton, 6737, to submit deposits to reserve the popular spots.



**WAITING PETS...**Children, and adults, will be able to pet animals in the Fun Fair park petting zoo during SCORA's annual family picnic May 3.

## Credit union will gather on May 2

The 49th annual meeting of the Shell Federal Credit Union will be held Friday, May 2 at 7:30 p.m. in the Gaines Mason Auditorium on Deer Park High School's north campus.

Credit union members attending will hear reports recapping 1985 performance and outlining 1986 expectations. In addition to official business, 27 cash prizes totaling more than \$2,400 will be given away. Three prizes will be special \$100 giveaways for retirees.

Additionally, each member will receive a free gift at the door. Children 16 years and under, who are members of the credit union, will receive two silver dollars.

Employees, pensioners and their family members who open accounts at the credit union before the annual meeting will be eligible to attend and receive prizes.

## Logistics uses many safe work techniques

**CONTINUED FROM PAGE 2**  
shared with other employees (names are eliminated to prevent embarrassment). If a trend for a particular type of injury is detected, those type of injuries will be a topic for regular safety meetings.

Logistics also has a Safety, Industrial Hygiene and Environmental Team (SIHET), an internal health and safety team comprised of a cross-section of employees. The team periodically inspects the physical environment in Logistics identifying factors that might contribute to safety problems.



**EASTER BONNET...**Kim Berryhill helps daughter Stephanie during SCORA's annual Easter Egg Hunt March 22. Berryhill is the daughter of Steve Compton, Lube A. More than 100 children and grandchildren of employees joined in the hunt.

*To improve safety, efficiency, productivity*

# Lab hires 'SMART' hand

The Refinery Lab recently hired a really "SMART" hand to help improve safety, efficiency and productivity of testing procedures.

The new employee is being trained to handle the more mundane testing jobs in the north lab. In particular, he is being taught to conduct acid wash color tests on benzene. The acid wash test involves handling acid and benzene to achieve a precise mixture of chemicals which then must be vigorously shaken 150 times in 40 to 50 seconds. Each shaking stroke must be a precise length as well.

The job is an appropriate one for this rookie's first assignment. Later he will be trained to conduct tests using phenols and other risky chemicals. As he learns additional testing jobs, he will be asked to work 24 hours most days.

Not your usual employee, this new hand is Shell's Mobile Automated Robotic Tester (SMART).

"Robotics is alive and well at Deer Park, thank you," said Dale Taggart, a process chemist in the lab who was watching as Wilbert Pegues, of the Phenol Acetone analytical lab showed off the new employee. In addition to conducting Robot training in his area, Pegues also is spearheading use of the robot and automation in procedures throughout the lab.

Automation has caught the fancy of many lab employees and implementation has been a team effort, said Pegues. More than half of the lab employees participated in a "name the robot" contest. Raphael Allen, a tester in the Operations lab, submitted the SMART acronym selected.

Knox Montgomery, process chemist, planted the seed for robotics following an introduction to SMART's contemporaries at a 1984 Pittsburgh Analytical Chemistry Conference. Chuck Keith, group leader of the LPA process chemistry group, suggested robotics be used for the acid wash color test as a trial application. Like Montgomery and Keith, other employees have been searching for SMART applications in their areas to recommend to Pegues.

"We see many other applications for Phenol Acetone and other units at DPMC," Pegues said.

Although robots are commonplace in some research labs, Deer Park is the first Shell manufacturing location to use robotics in its testing lab. "The little guy has many good applications here," Taggart said. "Since you want to be consistent during testing, using a robot that does the same thing the same way each time makes sense. He can be more efficient.

"And, since our tests involve chemicals,

letting him handle these reduces chemical exposure to our lab testers," he said.

"Also, the steps in the testing procedure are repetitive and time consuming. Letting the robot handle these frees up lab testers to do more creative things," Taggart added.

"We are not replacing our human employees in the lab with SMART," emphasized Jerry Ward, lab manager. "Our thrust is simply to refocus our efforts so that the more routine activities are automated, leaving lab employees at all levels in the organization free to handle more judgmental duties. The robot does not get bored."

SMART goes about his job methodically, but he has a certain flair as well. For example, in a warm up motion reminiscent of the Honeymooners' Ed Norton, SMART began the acid wash color test by thrusting his arm to full extension, retracting it and throwing out his arm again before lowering fingers to pick up an empty test tube. Before he placed the test tube under a syringe which squirts acid into the tube, SMART dashed his fingers to the right to pass the glass tube over a sensor, checking to be sure he picked up a tube.

"He has good lab technique," said Pegues, smiling as SMART gently tapped the acid syringe to make sure the last drop of acid did not spill on the counter.

Sitting at a computer terminal, the brains of SMART, Pegues watched as the robot proceeded to wash the test tube with acid and mix acid with a benzene sample. SMART deliberately checked and double checked his steps, ever careful not to cause a spill.

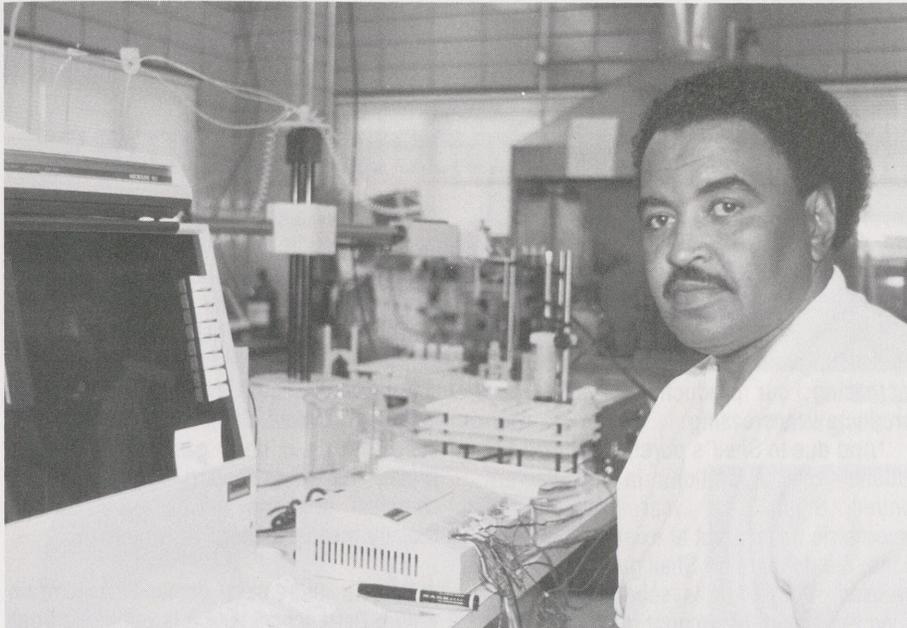
A quick, fluid motion moved the mixed product to a mechanical shaker where a perfect, quick stroke mixed the product in 50 seconds. SMART removed the tube from the shaker and placed it on the stand where the mixed sample sat for a prescribed 15 minutes before color of the product was analyzed. SMART inserted a colorimeter probe into the test tube and in seconds took 10 color readings, averaging and transmitting readings to the computer terminal.

"Previously, we would look at the color and make a subjective decision if the color



**HANDLES WITH CARE...SMART, the lab's new robot, carries a sample of benzene to his work station as he prepares to conduct an acid wash color test on the benzene.**

CONTINUED ON NEXT PAGE



**THE BRAINS...** Wilbert Pegues sits at the computer terminal he uses to program precise test steps SMART, the labs new robot, follows. In the background, SMART is conducting an acid wash color test.

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was on or off spec," Pegues said. "SMART is much more objective, and accurate."

The objective accuracy of SMART is valuable. "If the acid wash test does not catch off spec benzene, it could cost us \$100,000 per day," said Taggart. "SMART could pay for himself very quickly."

Taggart said although SMART initially will be used for the acid wash test alone,

now that the seed has been planted and the lab has the robot, employees are finding additional ways to use him. "For each test we want him to perform, we just set up a test station and program the computer. He will do one set of tests, then go on to the next set of tests."

"And when we run out of room to set up test stations, then we get another robot to keep SMART company," said Taggart. Robotics is alive and well, and perhaps growing, at DPMC.

### ***Classified / Classified***

**FURNISHED HOME** on Lake Livingston, 2 BR, fireplace, large balcony porch. \$200 per month. 944-3758.

**TWO, 25 ACRE BLOCKS** of land north of Crockett, one with stock tank. One block \$1,800 per acre; other \$2,000 per acre. Both blocks for \$1,900 per acre. Owner financed at 10.5 percent. 409-544-2912

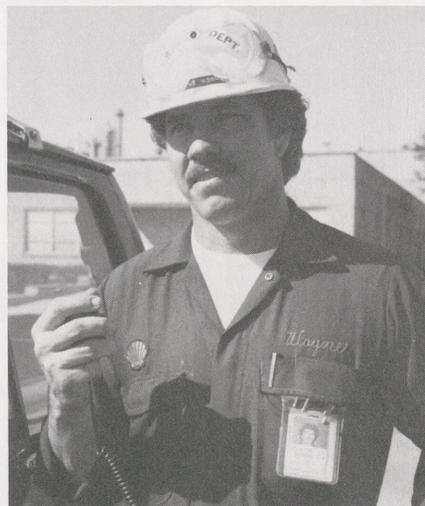
**ONE-ACRE TRACT** in Crosby. Cleared, sodded, some trees. 155' x 280'. Electricity available. \$8,000. 328-7410.

### **THANK YOU'S**

My thanks and appreciation for the gifts and kind words at my retirement party. My children were thrilled to have been [at] the party. Thanks for a super day. **B. F. ASHMORE**

Thanks for the retirement parties, gifts and fond memories provided by so many friends at Shell. **GERALD HAMILTON**

I thank everyone for the retirement gifts and plaques. I will always cherish the plaques. **C. J. WILLIFORD**



**ACTIVE FIREFIGHTER...** Wayne Morris has won back-to-back awards as the most active firefighter in Deer Park's Volunteer Fire Department. In 1985, Morris responded to the most fire calls; in 1984, he made the most emergency medical unit runs.

## **DP's Morris picks up award . . .**

Wayne Morris, Safety, picked up his second consecutive outstanding participation award for volunteer efforts with the Deer Park Volunteer Fire Department (DPVFD).

Morris received the Mayor's Award for most fire calls in 1985. A fire call includes call outs for any size fire, and also includes fire truck or ambulance responses to major traffic accidents.

During the past year Morris made nearly 300 calls, about 70 percent fire calls, he said. "You have to enjoy it. It takes time away from the family, especially the calls at 2 and 3 a.m., but it is rewarding when you can save someone's life or someone's property," Morris said.

Besides helping during emergencies, Morris finds working with kids during Fire Prevention Week fulfilling.

The three-year veteran volunteer firefighter received the City Council award in 1984 for the most Emergency Medical Service (EMS) runs.

## **. . . Gonzales also honored**

Also honored during the recent fire department awards banquet was Juan Gonzales, CPS. Gonzales, EMS Captain at Deer Park Fire Station 2, was cited for 5 years of service to the department.

In addition to Gonzales, Scott Willis, Distilling, and Van Little, Safety, are 1986 officers for the DPVFD. Willis is Deputy Fire Chief, Station 1, and Little is Lieutenant, Station 2.

## **Haydock receives EMT recognition**

In a related story, Richard Haydock, Distilling, was recognized during DPVFD drills for receiving 1985's outstanding student award in Emergency Medical Technician-Basic Training from San Jacinto college. The DPVFD member is qualified as an EMT and is working on completion of paramedic certification.

## Bettencourt:

# 'Deer Park can survive competitive times'

CONTINUED FROM PAGE 1

flexibility and improved use of manpower. In that move, a large maintenance shop was shut down and combined with another maintenance shop, thus saving considerable building expenses and supervision costs.

All of these moves, and even shutdowns during the last five years of a number of chemical and refining units which were not profitable, have been accomplished without a layoff of Shell personnel. "We have accomplished unit shutdowns without layoffs because of improved work flexibilities, natural attrition of employees and reassignments within the complex," said Bettencourt. He said the Shell work force size is down over the past three years through retirements and normal attrition.

Bettencourt was careful to paint neither a bleak nor bright picture. "Deer Park made progress in cost reduction during 1985. The financial performance of one of our chemical businesses and our lubricants business was very good in '85. However, the financial performance of our fuels and base chemicals businesses was still very poor," he said.

Although certain businesses still are marginal performers, the complex has

several units experiencing increased demand, including gasoline production units.

"Demand for phenol and bisphenol-A (intermediate chemicals which are found in end uses such as automobile parts, protective coatings and agricultural chemicals) is increasing; our production of these two products is increasing.

"And due to Shell's purchase of 400 additional service stations in the Eastern United States last year, and higher volumetric throughput at existing Shell stations, the demand for Shell gasoline has increased. Deer Park is scheduled to produce the maximum amount of gasoline that we can within certain cost criteria," he said.

Speaking directly about falling prices, Bettencourt said crude and product price volatility is not necessarily an advantage to refining. "If the margins, that is the difference between the cost of crude and the price of products, remain reasonable, we should do okay.

"Lower prices usually mean higher demand -- in the future. However, many times in the past the lead and/or lag times have worked to our disadvantage. Sometimes the price for our products goes down before the price of raw material goes

down," he said.

Lower crude prices have had a serious negative impact on Shell Exploration and Production, which has been the largest profit maker of Shell Oil Company's business, Bettencourt said.

Bettencourt noted that the drop in crude oil prices affects chemical products much the same as it does gasoline. As crude prices head downward, the price for chemical products moves lower, which usually means higher future demand.

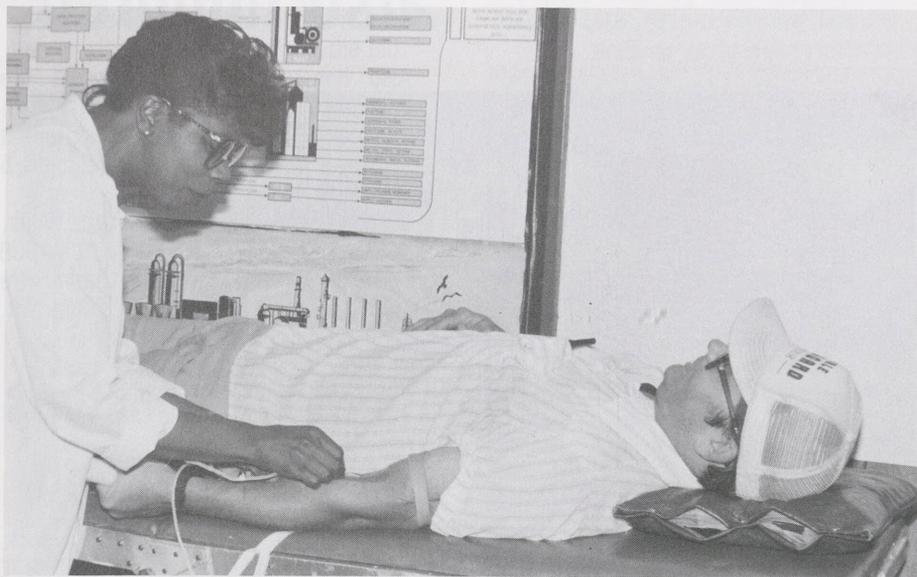
Despite increased demand in certain areas, Bettencourt said it is not likely Shell Deer Park will construct any new plants in the next several years since none are in the engineering phase right now. A pilot plant to develop a Shell coal gasification process is under construction now with completion scheduled late this year. However, this unit will operate for the purpose of developing the coal gasification process and is not a commercial production scale unit.

"In the next several years, we expect to operate the units which are in operation today. We will need to operate units more efficiently, with improved employee productivity," Bettencourt said.

Productivity is being improved through more efficient work practices, a more effective organizational structure, new technologically sophisticated systems and active implementation of a Quality Improvement Process. Quality directs employees to do all tasks right the first time, eliminating costs of redoing work, and to discover potential defects before those defects can create errors in the product. Achieving quality goals depends on all employees participating in the process, as well as all outside vendors or contractors working for Shell.

"We must make changes to make progress, and we must make progress to be competitive. Our competition is not sitting still; they are improving their effectiveness rapidly. We must do the same if we are to survive. We can if each one of us does what we are capable of doing.

"By improving employee productivity, reducing our costs and keeping our units running at a high stream factor, Shell Deer Park can survive these competitive times," said Bettencourt. "It is our intention not only to survive but to be a leader in the oil refining and chemical industries," he emphasized.



**DRAWING FOR GIFT OF LIFE...**The Blood Center's Belinda Miles-Ray draws blood from Steven Helton, Operations, during DPMC's Spring Blood Drive March 10-20. The spring drive fell short of its goal, but employees will have another chance to push DPMC over the goal during the fall blood drive scheduled for Oct. 14-23. Also, employees can make blood donations at the Blood Center throughout the year and credit those donations to the DPMC employee blood program.

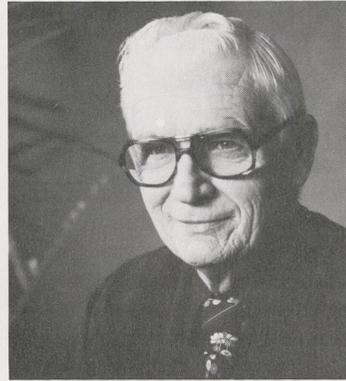
***Retirements***

***Retirements***

***Retirements***



**S. M. BURTON**  
Retiring with 40 Years



**I. F. CALLAWAY**  
Retiring with 37 Years



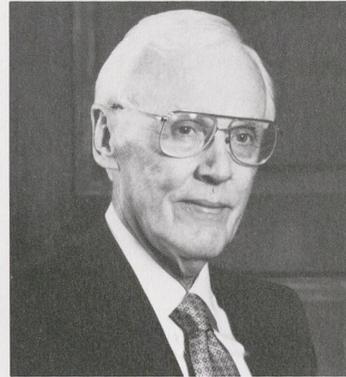
**DON CHRISMER**  
Retiring with 31 Years



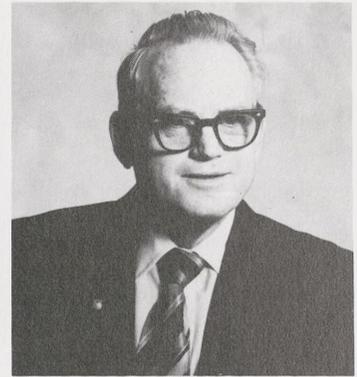
**RUTH CLOSE**  
Retiring with 30 Years



**R. V. GARTMAN**  
Retiring with 32 Years



**LENNY J. LAMBIN**  
Retiring with 43 Years



**BILLY PAYNE**  
Retiring with 32 Years



**D. SMITH**  
Retiring with 31 Years

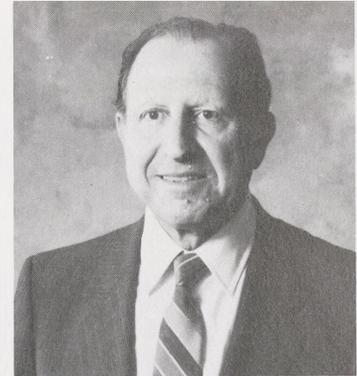


**G. L. WILLIAMS**  
Retiring with 30 Years

***Service Anniversaries***

***Service Anniversaries***

***Service Anniversaries***



**VINCE MAGGIO**  
40 Years Service



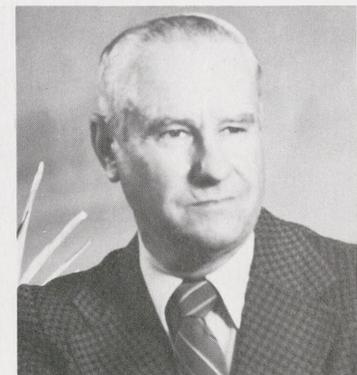
**W. FOWLER**  
30 Years Service



**BILL DEUBNER**  
25 Years Service



**IRENE K. GOEDRICH**  
25 Years Service



**J. E. HOBSON**  
25 Years Service

Deadline June 6

# July issue to honor grads

The **SHELLEGRAM** will honor graduating sons and daughters of complex employees and retirees in the annual Graduates' Issue published in July.

Also, employees or spouses graduating from colleges will be included in the special issue.

High school and college graduates must

send a photograph (with the student's name lightly penciled on the back) along with the graduate's form printed on this page to **SHELLEGRAM** Editor Dennis Winkler.

The deadline for submitting photographs and forms is **FRIDAY, JUNE 6**.

The information can be sent by company mail or hand-delivered to Winkler in the

North Administration Building, Room 238B, or mailed to **SHELLEGRAM**, P.O. Box 100, Deer Park, TX 77536.

Photographs, as well as complimentary copies of the Graduates' Issue, will be mailed to the employee-parent's address listed on the graduate's form.

## TYPE OR PRINT CLEARLY

Graduate's Name \_\_\_\_\_ High School \_\_\_\_\_ College \_\_\_\_\_

Employee - Parent's Name \_\_\_\_\_ Department \_\_\_\_\_ Work Extension \_\_\_\_\_

Parent's Address \_\_\_\_\_  
Street City Zip Code Home Phone \_\_\_\_\_

High School \_\_\_\_\_

College \_\_\_\_\_ Degree \_\_\_\_\_ Major/Minor \_\_\_\_\_

School Activities - Honors \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Future Plans (College and major or work plans) \_\_\_\_\_

**Attach photo of graduate with name on back.  
Mail to: SHELLEGRAM, P.O. Box 100, Deer Park, TX 77536  
Deadline for submission is June 6.**

## Shellegram

Deer Park Manufacturing Complex

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**Dennis Winkler**  
Editor

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