

Shellegram

89:12

DEER PARK MANUFACTURING COMPLEX

Shell to Phillips' rescue

Complex helps its neighbor battle a blaze

"I was in the Safety Office when the explosion occurred. I felt it and saw the mushroom cloud go up," says MIKE BOAZE, safety inspector, who was among the first group of DPMC employees to assist at the scene of Phillips Petroleum's fire last month.

The Health and Safety Department gathered a crew for an aerial truck and a pumper. The crew responded and stood by the entrance road to the Phillips chemical plant while Complex Health and Safety Manager ED HAWTHORNE assisted CIMA personnel, the Ship Channel's firefighting cooperative, as they prepared to help Phillips fight the blaze.

VAN LITTLE, assistant fire chief and senior safety inspector, was in charge of "staging" incoming equipment and calling for additional resources as needed. ROBERT TAYLOR, Health and Safety supervisor, operating from DPMC, coordinated those resources—manpower, hose, food, whatever was needed for the firefighters to do their job.

Upon hearing the call for all available

medical personnel, K. MOORE, medical supervisor, dispatched two RNs with the Shell ambulance and two SMART members. Five RNs, Medical Director ED. SHEPPER, and two other SMART members remained on standby at the Medical Department. SMART Team Coordinator DENISE BACH, R.N., remained at the Medical Department to arrange for additional supplies as requested by RNs at the scene.

Our fire crew training and drills with other CIMA organizations really paid off.

Complex personnel offered about two days of round-the-clock support to their industrial neighbor, rotating manpower in two shifts, according to Little.

"It was the largest fire I ever saw," admits JAY GANTENBEIN, DPMC Volunteer

Fire Crew captain. Gantenbein was responsible for laying the hose from Shell's pumper and coordinating hose lines with other fire department pumpers.

"Our fire crew training and drills with other CIMA organizations really paid off. Everybody worked together. The amount of hose that had to be laid took a lot of time. But with all the cooperation it was a smooth operation," reports Gantenbein.

According to Taylor, DPMC's Health and Safety support included 35 fire personnel, a pumper, aerial, and 4,000 gpm water canon for our industrial neighbor.

Industrial and municipal fire departments from as far away as Montgomery County, Port Arthur, Freeport and Ponderosa also assisted.

"Shell assisted in a massive relay pumping effort that involved 15 pumpers with up to 15,000 feet of large diameter hose supplied by various fire departments. It took quite a bit of coordination and cooperation between the industrial and municipal departments to do that," says Boaze.



BOWLING FOR DOLLARS—Shell Deer Park bowlers strike up \$650 in pledges in November 4's Junior Achievement Bowl-A-Thon at Mimosa Bowling Lanes in Pasadena. DPMC was among other Shell locations and corporations sponsoring teams that helped raise funds for the non-profit organization that offers high school students practical business experience. Team members are (from left front) Celia Vasquez, Mary Apodaca, (from left back) Ted Petit, Greg Langnau, and Steve Smith (team coordinator), all from the Materials Management Department.

DPMC retirees organize social club

All DPMC retirees are invited to attend a meeting to form a Shell Deer Park retirees club. The organizational meeting will be held 1:30 p.m. January 11 in the North (Refinery) Cafeteria.

"On several occasions retirees have indicated considerable interest in forming a retirement club for all DPMC retirees," says A.P.

(AUGIE) AUGUSTINE, retiree, and one of the organizers of the new club.

Augustine asks that retirees plan on attending this meeting "to help guide this effort that will provide us with many enjoyable activities in the future." RSVP TO OUIDA REEVES, 476-6857. Refreshments will be served.

Phase II Safe Work Groups qualify for first round of recognition awards

The first period of eligibility for the Phase II Safety Recognition Awards is over and 33 of the 70 Safe Work Groups have qualified. Individuals in these groups who have personally qualified will be eligible to receive one of the four awards being offered this time, announces LEE CLARK, E Department, and SAFE Awareness Team member. The awards are an AM-FM stereo radio headset, a locker bag, a wet-dry vacuum, and a pair of binoculars.

In addition, to recognize the "Top Ten" groups, qualifying members will receive a gold-foil hard-hat sticker proclaiming them members of the top ten groups qualifying on the very first opportunity.

Tied for First Place with a perfect participation rate over three consecutive months are: Environmental-Shift Three, Environmental Engineering Technical Team, and Fuels Admini-

stration Safe Work Groups. These three groups are led by A.E. BROWN, K.R. SPRINGER, and LINDA SPILLER respectively.

... 33 of the 70 Safe Work Groups have qualified ...

Other groups making the top ten include: Health, Safety and Medical (R.L. TAYLOR); Process Engineering, Utilities (K.E. REINHARDT); E&S Product Analysis (KAREN HOOK); Environmental-Shift 2 (H.D. MILLER); Logistic Administration (R.L. RAUCH); Site III (MIKE KRIEGEL); and Environmental-Shift 1 (M.L. CORRAN).

These and the other Safe Work Groups qualifying this time will be eligible again in three months if they meet all of the necessary requirements. Several Safe Work Groups should be eligible next month, according to Clark.



BPA-4's new technology designed to produce purer, more consistent product at less cost

Editor's Note: This is the third and final part of a series of stories about the people, the plans and the process at BPA-4, DPMC's newest chemical plant, which is expected to start up late next year.

As BPA-4 moves closer to completion, those involved in the chemical plant's start-up are anxious to put the new facility to the test. The project represents some new technology developed by Shell at their Westhollow Research Center, and some existing technology.

BPA-4 will produce the higher purity BPA (BPA-157, known as polycarbonate grade BPA), as does the existing BPA-3 unit at Shell's Deer Park facility.

"Once running, BPA-4 will be an integrated part of Shell's BPA manufacturing facilities at Deer Park. Both BPA-3 and BPA-4 will produce the polycarbonate grade BPA. The operation of these two units will be tied closely together through the use of several common facilities. The existing BPA flakers (which turn hot, liquid BPA into solid flakes), and the existing CIP unit (which processes a purge stream) will service both BPA units," says PAUL SPICER, field team manager.

The Dephenolation Unit, which is being built with the BPA-4 project, will also service both units.

"This unit is essentially an 'environmental unit.' It will take the water by-product produced in both units and clean it up so that it can be sent to Shell's water treating facilities for final cleaning prior to being released to the ship channel," says Spicer.

Although BPA-4 will be producing the same product as BPA-3, the process is a little different, and the quality will be marginally different. BPA-4 is expected to produce a product that is slightly lower in impurities.

"BPA-4 is a new process," says JAMES STEWART, Head Office project engineer. Stewart is the mechanical team leader for the BPA-4 Start-up. His job is to oversee "mechanical debugging" of the unit, making sure it runs properly at start-up.

"There's new pieces of equipment that haven't been used in this application before," says Stewart.

Stewart also says the process doesn't require all the "exotic metallurgy" found at BPA-3.

"It will produce a higher purity product at a lower cost," says BILL LACKEY, Head Office project engineer, who leads the construction effort.



NEW BPA SILOS—These silos, which are being built as part of the BPA-4 project, will provide additional storage capacity in order to continue to meet Shell's customer's requirements for timely delivery of our product.

"One of the main differences between BPA-4 and BPA-3 is the reaction technology," according to GARY GREIVENKAMP, TSO, who refers to himself as the "interface" between the BPA-4 Project Team and the DPMC BPA-4 Start-up Team. According to Greivenkamp, the BPA-4 process will be far less corrosive than the existing process.

Explains Greivenkamp, "BPA-4 will use a new catalyst that simplifies the process and

permits the use of lower cost metallurgy."

"BPA-4 is going to be really critical to Shell's Resins business plans because we're going to have more product of higher, more consistent quality than we've had before," says LEO BROERING, Head Office Operations representative, who is responsible for the raw material network that will support the resins business.

Shell produces its "Epoxy® Resins" at its Deer Park location. BPA is one of the primary feedstocks going into the manufacture of these resins.

"Shell is positioning itself to change the feedstock for its Epoxy® Resins from the lower purity BPA feed to the higher purity BPA-157 feed. This is expected to produce Epoxy® Resins which are also of a higher purity and more consistent. Resins are very much performance products so consistency is critical to our customers," Broering says.

These resins are used in coatings, castings, moldings, and adhesives, to name several applications.

The other major outlet for BPA in the United States is polycarbonates, according to Broering who says that over 50 percent of the BPA manufactured in the US went into polycarbonates in 1988.

Polycarbonates are used for common items such as windows (airlines, buses, buildings), computer housings and components, compact disks, electronic circuit boards, headlights, tail lights, and small kitchen appliances.

"Shell doesn't have a polycarbonate plant, but we're closely aligned with Mobay, our strategic partner in BPA. We're critical to their success worldwide," Broering adds.

BPA-4 will also be supplying the brominated BPA market in the manufacture of flame retardants and circuit boards, according to Broering who adds that Shell's major customer in the brominated BPA market is Ethyl Corporation.

Other resins coatings customers include Glidden, PPG and DuPont. ■



10 TIPS for the Post-Holiday Dieter

The holidays were everything you were hoping they'd be—festive visits with family and friends, all-around good cheer and mounds of the most savory foods a caterer could place on a platter. But let's face it, the turkey

isn't the only one now you could call butterball.

All those innocent-looking

little finger foods weren't so innocent. And when your mother said "Try it, you'll like it," you did, again and again. All that cost you inches of excess fat, a dress size, and a case of post holiday bulge.

Fear not. You know what you have to do. Shedding the eggnog, stuffing, and chocolate candy is a piece of cake when you have a few dieting tips to get you through. Take it from DPMC Nurse MARIE WILSON.

Marie used to be 40 pounds heavier and four dress sizes larger only a year ago. She can testify to some simple tricks that can get you back in shape again soon—painlessly. Marie's 10 tips to easy weight loss:

1. EXERCISE. Not only does it burn calories while you're doing it, but after, by increasing your metabolic rate for a period of time. Fifteen to 30 minutes, three times a week is sufficient. Exercise tip: Switch the kinds of exercise you do from time to time (from biking to aerobics to

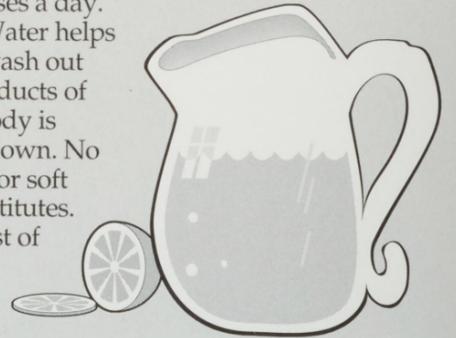
walking briskly, for instance). Repeated weight gain and loss causes your metabolism to be reset lower, but exercise can help reset it higher so you can start burning off more calories again.

2. DRINK PLENTY OF WATER. Eight

glasses a day.

Water helps wash out the by-products of fat your body is breaking down. No coffee, tea or soft drink substitutes.

Add a twist of lemon or orange if you dislike plain water.



3. EAT A BALANCED DIET. Although you might think otherwise, you're probably getting proper nutrition while you're dieting because you are more mindful of what you're eating. Women should be aware of what they need proper amounts of calcium. Take high potency vitamins to ensure proper nutrition.



Groundwater recovery activities ongoing at DPMC

About 10 years ago, as part of a corporate program, DPMC began to study the subsurface environment beneath the Complex to identify and understand any environmental impact made by its refining and chemical operations on shallow groundwater and, if need be, to initiate remedial action.

Shell was among the first U.S. companies to initiate such studies. Each of the company's refineries and chemical plants underwent extensive hydrogeologic site assessments.

CHARLES BLAND, Environmental Compliance, says the formal DPMC assessment was completed in 1981 and updated in 1984. The extensive program involved a review of site records for past spills and leaks, and installation of a series of observation wells to better define the groundwater depth and flow direction under the Complex.

"The study also identified areas of possible subsurface contamination and, where hydrocarbons were detected, a series of recovery wells was installed," says Bland. The

recovery wells, located at five localized areas around the Complex, are pumping contaminants from below and processing them for recovery and removal.

According to KEN SPRINGER, Process Engineering-Environmental, typical sources of subsurface hydrocarbon contamination were leaking underground pipelines and tank bottoms. In fact, he points out, a pinhole leak, over time, can result in measurable contamination of the subsurface.

"Most refineries in the United States were built before World War II, when engineering standards and public concerns were notably different," Bland observes. "In view of today's concerns, however, Shell has been expanding its engineering program to provide stricter controls on leak prevention, detection of leaks if they occur, and advanced recovery techniques."

To date, a total of about 350 observation wells and 15 recovery wells have been installed at DPMC. The observation wells are visible around the Complex as 4-inch PVC pipe sticking up from the ground. Water flows into the bottom of these wells through a screen.

The largest recovery operation involves removal of products which come from the central part of refinery operations. Based on site assessment and routine test results from observation wells, hydrocarbons located in the subsurface are being successfully recovered and are controlled on site.

Additional extensive hydrogeologic studies were completed this year. According to Springer, these studies have given us a very good understanding of the soil structure beneath DPMC and they complement earlier work.

Generally, the shallow soils are mixtures of sand and clay. These soils rest on top of a thick layer of clay which, for all practical purposes, is not penetrated by liquids, including water. The water table above this clay layer varies from about 5 to 15 feet below the surface. Below this upper level and within about 120 feet of the surface are two more successive levels of sand and clay mixtures sandwiched between thick, impermeable clay layers.

Water in these levels, which moves toward the Ship Channel and Patrick's Bayou, is not used.

RON NOVOSAD, Process Engineering-Environmental/Utilities, says drinking water is obtained from water-bearing strata about 400 feet beneath DPMC. The hydrogeologic studies show the clay barriers essentially eliminate any possibility of migration of contaminants to those deeper drinking water supplies.

"What's more, we periodically analyze water, both from drinking water wells on Shell property and from 100-foot-deep observation wells, and it continues to be free of contaminants," Novosad adds.



SURVEYING GROUNDWATER—Ken Springer (r), engineering assistant, uses a special tape/monitoring tool to survey groundwater observation well No. 502, one of more than 350 such wells drilled on DPMC property, to test shallow groundwater. Lupe Ruiz, vacuum truck operator, assists Springer. Shell's hydrogeologic testing program to detect possible hydrocarbon contamination of these shallow sands has been ongoing since 1981.

Recovery constitutes a long-term project, says Bland. "We are continuing to make significant progress," he says.

DPMC periodically updates the Texas Water Commission and the Environmental Protection Agency on all aspects of the DPMC groundwater program.

"Our program is very effective in achieving our goals of protecting the underground environment," says Bland.

Letters to the Editor

Thanks from Collards

Thank you for making my retirement a special time. The party, the plaque, the gifts and visiting with so many friends from the past 40 years was just great. Thanks again for everything.

CHARLIE & HELEN COLLARD

Thanks from Ben Moore

I appreciate the retirement "coffee and cake" get-together in my behalf on August 22. I especially appreciate the retirement "scroll" and retirement album. I feel fortunate to have worked for over 35 years at Shell DPMC. Best wishes for good health and happiness to all. Thanks for everything and take care.

BEN R. MOORE

4. AVOID FAST FOODS. Eat salads instead. Otherwise, choose low calorie entrees like broiled or bake fish or chicken without sauces. Hints: Drink a glass of water before you eat and eat slowly—you won't want to eat as much. Think about each bite before you put it in your mouth—you'll actually enjoy it more. Have salad dressing served on the side—dip a fork in the dressing and then spear salad. Stop eating at the first sign of feeling full and have your plate taken away. Finally, give yourself permission not to eat anything you don't like.

5. INCREASE BRAN & ROUGHAGE. They're lower in calories and will help lower your cholesterol and help decrease your cancer risk. Warning: frozen bran muffins might contain eggs and could have as many calories as doughnuts.

6. WATCH OUT FOR PACKAGED AND PREPARED DIET FOODS. Some are high in sodium and fat and are not nutritionally sound.

7. DIET WITH A FRIEND. Don't compete. You're there to support each other, not criticize. Individuals lose weight at different rates.

8. START EVERY DAY AS A NEW DAY OF DIETING. Don't be overly critical of yourself for yesterday's diet failures. Today is a new day to succeed.

If you do the first two things on this list, you'll probably lose five pounds in a month or so.

9. DON'T TACKLE TOO MANY PROBLEMS AT ONCE. If you're overweight, in poor physical condition, or a smoker, battling them all at once is difficult and can "drive you crazy." Prioritize your problems. Exercise is important to help you lose weight, but it's not necessary to be a marathon runner to succeed.



10. REWARD YOURSELF FOR SUCCESSES. Make the rewards worthwhile; things to which you can really look forward.

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"If you do the first two things on this list, you'll probably lose five pounds in a month or so," says Marie. "If you want to get it off a little faster, just go on down the list a little further."



MILESTONES

Service Anniversaries

40 YEARS

D.G. HART
Proc. Engrg./Resins

35 YEARS

T.J. HOGAN
BPA

B.R. PARKER
Olefins Oprns.

25 YEARS

D.L. CHAMPEON
Proj. Engrg.

W.D. JARVIS
Olefins

W.E. LONG
Engrg./Sys. Supp.

20 YEARS

L.R. ALBANESE
Welder

J.P. BEDFORD
Fuels/Aromatics

L.A. FAGG JR.
Welder

B.L. LAIN
Fuels/Aromatics

J.L. MCDANIEL
Olefins

H.G. SMITH
Fuels Alky/Therm. Crkg.

15 YEARS

R.H. BENSON
Chem. Oprns.

D.C. BUCHANAN
Engrg. Admin.

R. ESPINOSA
Log./Env./Util.

G.G. HART
Env./Util./Env. Oprns.

J.J. HOLLIS JR.
Env. Conserv.

L. JACKSON
Lube Manufac.

T.R. MICKLE
Machinist

P.A. ORTIZ
Phenol Acetone

R.W. PENLAND
Olefins Oprns.

W.T. SCHOENBEIN
E. Oprns./E. Maint.

D.A. SKEAHAN
Chem. Oprns.

T.D. STINSON
Env. Conserv.

C.A. WESLEY
Env. Conserv.

O.T. VEGA
Olefins Oprns.

M.G. WILLIAMS
East Maint.

10 YEARS

J.F. ALLSEITZ
Engrg. Cont. Sys.

D.E. BROWN
Hydrocracking

M.K. DAVIS
Fin. Oprns. Supp.

S.J. EVANS
Hydrocracking

K.W. FOWLER
Central Maint.

B.W. GOLDMAN
HS&E Safety

L.A. GONZALES
P&AS

L.V. HALL III
Central Maint.

W.C. HICKS
Welder

J.W. JOHNSON
North Lab

P.D. JORDAN
Fuels/Dist./Solv./Trea.

J.A. MOHAN
Fuels/Dist./Solv./Trea.

R.D. UTSEY
Fuels Alky/Therm. Crkg.

B.R. WILLIAMSON
North Lab

J.D. WILLIAMSON
Lube Manufac.

DPMC WELCOMES

S.S. ADCOCK
P&AS

U.T. ALEXANDER
Empl. Rel.

C.S. BAKER
Empl. Rel.

B.R. BROWN
Empl. Rel.

L.L. BURNS
Empl. Rel.

R.L. CARVAJAL
Empl. Rel.

D. DELEON
Empl. Rel.

S.A.M. DOSIER
Empl. Rel.

J.C. ESPINOZA
Empl. Rel.

D.C. FOULK
Proc. Engrg. Ref.

C.D. FRANKUM
Empl. Rel.

A.D. HARRIS
Empl. Rel.

W.W. HORTON
Empl. Rel.

C.P. HUTSON
Empl. Rel.

T.A. SKROVANEK
Control Systems

RETIREMENTS

G.D. ASHLOCK
Utilities Sys.



R.G. DEARDORFF
Distilling
(above, July)

L.C. HAWN
Security

J.B. HEATH
Env. Oprns.



D.D. HINZE
Chemical Maint.
(above, March)

H.W. KESSLER
Lube Manufac.

R.J.L. MAES
E Dept.

D.S. PATTERSON
P&AS

MEMORIAM

R.G. WILLARD, retiree, died
November 15, Banalstyne, TX.



FUZZY FRIEND GETS FED—"EZ" Zalesak enjoys retirement in Caldwell, TX. Snoopy visits him every day for a pecans snack.

SCORANOTES

10 slots open on SCORA board

If you like to plan and attend social events, consider running for a position on the SCORA Board. Names must be submitted to BILLIE DANIELS, x6684, by Jan. 31. Ten slots are open.

"We need people willing and able to give up some of their time—come to meetings, and help set up and run events throughout the year; people who are doers," says RUSSELL ADAMS, SCORA president. "It's a fun thing to do, and we have a lot of fun. That's our intent."

Adams says SCORA is a good way for the whole family to enjoy themselves since so many of the activities are family oriented. SCORA would also like to see more staff participation. "This is also a good way for new employees to get involved," adds Adams.

New board terms begin April 1. SCORA's first meeting is April 17. Meetings are every third Tuesday from 2-4 p.m. in the North Cafeteria. Reminder notices will be sent out.

For more information on running for office, call Daniel, or call Russell at 549-9948 (beeper).

Watch for flyers and *Shellegrams* for future SCORA events.

CLASSIFIEDS

FOR SALE: Mobile home & Lot #57, Sam Rayburn Lake, Lakewood Add., off Old 705. Two bedrooms, 1 bath, C/H, window air, roof cover, porch, garage. \$8,500. Contact John T. Cutrer at 479-2246.

FOR SALE: 1986 Yamaha 4 wheeler, 80cc. \$575. In very good condition. Contact Tom Stricker at 476-7630 (DPMC work #) or 479-8311 after 4 p.m.



Deer Park Manufacturing Complex

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BULK RATE
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