

Modified and moved, idle Alky column becomes new Gas unit

If you've ever found a household utensil gathering dust in your attic, brought it down, refurbished it, and made it into a useful article again, you have felt some degree of the satisfaction now being felt by those connected with the cracked absorber/H₂S absorber project in Light Oil Processing.

The H₂S absorber removes hydrogen sulfide from refinery fuel gases and sends it to the Anlin plant west of the refinery. Anlin takes this substance, undesirable for our purposes, and makes pure sulfur which is useful for a variety of industrial purposes including fertilizer manufacture.

Harry Leamy, process manager in Gas said, "After H₂S is removed we have a good, clean gas which we can burn as fuel in the refinery. We have had one H₂S absorber for quite some time, but a second one will assure us of uninterrupted operation of this important ecological process."

When it was decided to install a second H₂S absorber, several possibilities were considered, including building a new one from scratch. Someone suggested we convert an idle Alky column and the ball began to roll.

Since the Alky column (a deisobutanizer) was too large to become an H₂S absorber, other considerations were made. The ultimate decision was to

perform a highly technical and sophisticated version of musical chairs.

Engineers, headed by the project engineer, Fred Stallard of Engineering Office, have designed the necessary modifications to: convert the Alky column to the cracked absorber for the Gas plant, and convert the current cracked absorber to become the second H₂S absorber.

Moving the old deisobutanizer from Alky to Gas was quite a project. It is eight feet in diameter and 146 feet tall. It weighs nearly a quarter million pounds.

"We decided to cut it into two pieces, transport them, and then put it all back together," said Stallard. After disassembly at the Alky plant, the lower portion was transported by heavy trailer (see picture) and raised into place by two of the refinery's large cranes. The second portion was then brought over and lifted into place.

Stallard continued, "The two parts were bolted together with 2-inch bolts. Although these bolts alone could hold the column together adequately, we are also welding everything to make it even stronger than it was."

Thanks to some good old "Yankee ingenuity" we not only have a second H₂S absorber, and a bigger CAU, we also have put to good use a refinery "utensil" which had been "just gathering dust."



The massive lower section for the new cracked absorber is hauled from Alkylation to Gas by a special tractor trailer. The trailer alone has 56 tires. Assisting the driver maneuver his unwieldy load of 90 feet and 75 tons into place is Anton Williams, boilermaker helper.

Tetanus immunization offered to all employees

Not many years ago, tetanus (often called lockjaw) was a dreaded disease. Medical treatment, when successful, was prolonged and expensive. But thanks to modern immunization programs, tetanus need not be the potentially serious threat it once was.

Tetanus toxoid inoculations have been available for many years to Wood River employees who have been injured on the job. Soon they will be available to all active employees who want to participate in an immunization program against tetanus—whether or not they have been injured.

Remember, tetanus can be caused by any object puncturing the skin. Many cases have been contracted from trivial scratches or wounds received at home or at play.

According to the refinery physician, Dr. Mitchell, modern technology can successfully combat tetanus, once contracted, in approximately 50 percent of the cases, but an immunization program beforehand will prevent the disease in virtually all cases, thus saving the individual from suffering and expensive treatment.

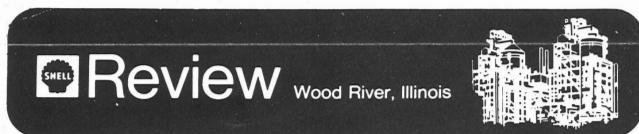
Dr. Mitchell said, "In the past, some people experienced allergic reactions to 'anti-toxin' used to combat tetanus, but the new tetanus toxoid, properly administered, rarely causes any reaction—and these are very mild."

Depending upon an employee's recent history of having received (or not received) tetanus toxoid inoculations, a booster shot or a series (over several months/years) will be administered. Inoculations will be given at the plant dispensary by our registered nurses under the direction of Dr. Mitchell.

Each participating employee will be given a wallet-sized card indicating each immunization. By carrying the card employees can show evidence of tetanus toxoid immunization should they be injured away from the job.

The program is free and voluntary. The choice for protection against tetanus (lockjaw) is yours. A letter is in the mail to all employees explaining the program and asking that you indicate your interest by returning a form to Employee Relations by July 13, 1973.

Schedules for inoculations will be set up through your department.



VOL. 36, NO. 5 WOOD RIVER REFINERY JUNE, 1973

Fab shop "rolls out the bundle"— and it's a big one

"If we have a bundle with more tubes in it, I haven't seen it in my 34 years," said Wib True, craft supervisor for boilermakers, pipefitters and tinners. He's referring to T-3611 destined for Lube Fractionation. The bundle has recently been dismantled and reconditioned. It will replace the current operating bundle in a future shutdown.

The bundle, located at the 40-foot level of the Lube Vacuum Fractionator, acts as the "overhead condenser". Steam jets pulling the vacuum on the column also pull off certain amounts of light oil and gases. T-3611 condenses these substances so we can use them elsewhere for product or fuel.

Instead of just getting new tubes, T-3611 got a complete overhaul this time. Work began in the boiler fab shop on April 11.

"This has been a lengthy job requiring good teamwork," said True. "Dismantling it was difficult because we had to cut and removed each of the 2550 tubes individually. Inserting and sealing the new tubes in the tube sheets is a precise job. Since there is vacuum pressure on the unit, we can't afford any leaks. The craftsmen and foremen did a fine job."

Ralph Elliott, boilermaker foreman, explained, "After the bundle was dismantled, new tube sheets were made.



"Rolling the tubes." Using a special tool, Frank Carrigan expands the outer couple inches of each tube to assure a tight fit. Leon Little applies oil to reduce friction. Both are boilermakers.

These are the perforated plates at each end of the bundle. The 20-foot tubes were then inserted and sealed to the tube sheets by expansion. We use a machine which expands the outer 2 1/4 inches of the tubes on each end so they can't move or allow seepage. We call it 'rolling the tubes.'

"You can see why this is a time consuming and exacting process. First you individually cut and remove 2550 tubes, then you slide 2,550 new tubes into their proper places, and then you roll 5100 tube-ends to anchor them."

When T-3611 is installed at the Lube Fractionator, it will be ready to do its job, thanks in part to the professional efforts of the crew at the boiler fab shop.



JoAnn Boren, senior clerk, admires a new addition to the refinery bus brigade, Wood River Woody. The professional efforts of three crafts combine to bring Woody and his messages to the busses. Shown next to JoAnn are, from left: Joe Hmurovich, painter; Andy Corsere, tinner; and Jerry Becker, carpenter.

ANNIVERSARIES



Mary Snider
Engineering Office
40 years



Mel Deist
Engineering Field
35 years



Frank Hendrickson
Utilities
35 years



Bill Mejaski
Research Lab
30 Years



Gary Pilz
Research Lab
30 years



John Robinson
Engineering Field
30 years



Lew Winterrowd
Refinery Lab
30 years



John Allison
Engineering Office
25 Years



Art Horsburgh
Technological
25 years



Bob Klie
Engineering Services
25 years



Ed Lewis
Purchasing
25 Years



Cleo Meredith
L.O. Processing
25 years



Clay Revenburgh
Utilities
25 years



Floyd Southard
Engineering Field
25 years



Nolan Woods
Lubricants
25 years



Wilbert Bauer
Purchasing



Ray Coale
Engineering Field



Bill Fite
Engineering Field



Wilbur Lamm
Engineering Field



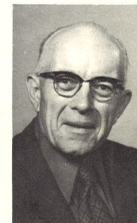
Dick Neely
Purchasing



Ray Pruett
Engineering Field



Nelson Pyle
Lubricants



Clifford Schilling
Purchasing



Charles Welch
Refinery Lab



Orval White
Lubricants

Sports and shorts

Teacher of the year

Mrs. Mary Alice McCleish, wife of John McCleish of Engineering Services, has been selected as Madison County Conservation Teacher of the year. Mrs. McCleish, a seventh grade teacher at Lewis-Clark Junior High School in Wood River, was recognized because of her personal interest, her educational program, her use of local resource personnel, and her giving conservation experiences to her students. She is automatically entered in the statewide competition.

Shell bowlers win Industrial League

The Shell X-100 bowling team won the highly competitive Industrial League at Bowl Haven. Teams representing various companies in the Alton-Wood River area were entered in the action which began last fall and ended with roll-offs in late May. The "average" bowler in this league averaged 182 for the season.

Golf leagues

The first half of the golf season has been completed. Winning teams were:

Premium League	Super Shell League
1. Inspection	1. Gorillas
2. Hydroprocessing	2. Technological

Strange fish

Two months ago we published a picture of a mystery fish caught near our docks during the flood. Although the jury is still out, the most plausible explanation is still that it was a spoonbill cat who had lost his spoon.

19??

Last month you saw Ray Randels conducting a safety meeting in the Quonset hut. What year was it taken? Reliable sources who were there agree it was 1951. We were happy with the response the picture brought, and hope to run similar "tintypes" in the future.

Ten-and-over barbecue

One last reminder. The annual ten-and-over barbecue will take place July 14 at the American Legion Park in Edwardsville.

RETIREMENTS

Ballman marks 35



Ed Ballman
Refinery Manager
35 years

Ed Ballman, refinery manager, marks his 35th year with Shell this month. A native of St. Louis, Ed received his B.S. degree in Chemical Engineering from the University of Missouri at Rolla before joining Shell as a technologist here at the Wood River Refinery in 1938.

Following naval service from 1941 to 1945, he returned to the refinery where he held various technical and administrative positions until he was transferred to Shell Canada Limited in 1951. He was located first at the Montreal Refinery and later at the Shellburn Refinery at Vancouver.

Ed returned to the United States in 1958 as process superintendent at the Martinez Refinery. He was named refinery superintendent at Wilmington in 1962 and became refinery manager there in 1965.

June also marks the anniversary of his return to Wood River as manager. He was appointed to this position in June, 1966.

The dilemma continues: Shell allocates gasoline

In the April issue of the *Shell Review* we spoke about the gasoline shortage and how Wood River Refinery has been processing crude oil at record levels in order to help Shell keep ahead of the demand.

Other Shell refineries have joined Wood River in a maximum effort to accommodate the ever-increasing gasoline demand, but the situation has reached the point where other measures, regrettably, have had to be taken. Shell has begun allocating gasoline to all of its customers.

"Allocation programs instituted by other gasoline marketers in recent weeks appear to have had the effect of a 'run on the bank' at many Shell service stations," said F.H. Staub, Vice President, Marketing.

"Our gasoline sales through April of this year are 12% ahead of last year. Our inventory position has been depleted and sales currently exceed our manufacturing capability. Therefore, we are embarking

on this program to ensure equitable distribution of our available gasoline supplies among our existing customers."

Under the program Shell customers receive monthly amounts based on 1972 purchases adjusted to ensure fair and equitable treatment. The June 1973 allocation was equal to June 1972 purchases from Shell. Subsequent months will depend on the Company's gasoline supply position at that time. Special provision will be made for those accounts who currently purchase Shell products but who were not gasoline purchasers in the corresponding 1972 period.

"Shell refineries are producing gasoline at peak rates but the Company's future supply situation will depend on maintaining this high level of performance," Staub said. "The other critical factor in meeting our product requirements is the continuing availability of domestic and imported crude oil supplies."

Golf day

The same foursome again teed off first in this year's Golf Day, but once again no one could tell who they were because of the early morning fog and the lack of distinct sunlight at 5:40 a.m. They did, however, lead 156 other participants into what turned out to be a glorious morning -- followed by a cloudburst of an afternoon.

Golfers concluded their rounds with a chicken dinner and liquid refreshments at the Wood River Moose Lodge.

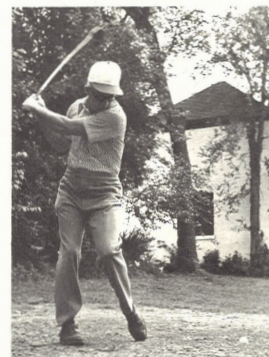
Cracking department provided the best golfers over the Cloverleaf Golf Course layout with Joe Scroggins getting medalist honors with a 69 and Tony Allaria second with a 70. Other top prize winners were:

Blind bogey low net: Larry Basden, Refinery Lab. Net 65.

Closest to the pin: Charlie Stanley, pipefitter. 6'11" from the hole.

Longest drive: Jim Smith, Refinery Lab.

The day's activities went smoothly thanks to a group of dedicated volunteer workers. The group, headed by Chuck Jones, included Bob Bevoden, Barb Black, Gary Bray, Max Clark, Mickey Harris, Judy Sasek, Wilbur Saul, Marg Stroud, Sully Sullivan, and Marella Zaganelli.



Rock Club puts on gem of a show at Kendall Hill

There are some people in the refinery who intentionally have "rocks in their heads."

They number about 60 and are members of the Shell Rock, Gem and Mineral Society -- better known as the Shell Rock Club. Members gather monthly to exchange knowledge about stones, gems, geology and other earth sciences, as well as techniques for collecting and cultivating these valuable substances.

On June 2nd and 3rd, members of the Rock Club displayed their collections and examples of their artistic skills at Kendall Hill. It was their third annual affair. Joining them as guest exhibitors again this year were members of the Piasa Rock Club of Alton.

"We estimate over 1,000 people came to see our displays," said Robby Robinson of Safety and secretary of the club. Quite a display it was, with everything from unusual crystal formations and fossilized substances to finely polished gem stones.

Many of the items were of the quality found in the finest stores. For instance, Richard Horbelt, painter and president of the club, showed highly polished "baroque" style stones and demonstrated the process to make them.

Each stone goes through a series of 24-hour a day "tumbles" in a specifically designed machine. After washing the stones and inserting progressively finer abrasives in the tumbler, the stones fairly glisten in a perfectly smooth state--some four to five weeks after the process began.

Several club members are expert silversmiths. These artists fashion mounts for gems such as rings and bracelets. They also make silver belt buckles and other such jewelry.

Members also displayed unique tables. The tops consist of pieces of petrified

wood or various colorful stones carefully arranged and enveloped in plastic resin. The result gives the appearance of solid granite or marble.

It may sound simple, but the process includes some 30 separate steps. The technique has been perfected by Shell Rock Club members to the point that their creations are considered among the best in the country.

If you missed the recent show at Kendall Hill or would like to learn more about this interesting hobby, contact one of the club officers mentioned in this story.



Petrified wood, carefully arranged and sealed in plastic resin, makes for a striking top to this prize winning table made by O. G. Gilbert, pensioner and treasurer of the Shell Rock Club.

DEATHS

ARNOLD HOCK, June 6. Arnold was a shift foreman in Dispatching before retiring in 1963.

HARRY H. DINWIDDIE, June 8. Harry was a boilermaker helper before retiring in 1959.

RALPH A. DARNER, June 17. Ralph was a foreman in Gas and had worked at Wood River since 1935.

Summer employees help in a variety of ways

Perhaps you've seen a few new faces around the refinery in the last several weeks. About 50 of these new faces are college students here as a part of a refinery program to bolster the work force for jobs best done during the summer months.

Primarily sons and daughters of Wood River employees, these temporary summer employees are working in various positions throughout the refinery.

Emmitt Nelson, Engineering Field manager, said, "From this department's standpoint, we are able to use the extra help to perform deferred and seasonal maintenance, such as repairing roads, fences, and fire walls. They also help us improve the overall refinery appearance."

Harv Birmingham, employment specialist in Employee Relations, said,

"The program is designed to provide assistance to students who have shown a sincere interest in pursuing their college careers. The employment process is a difficult task since there is a large number of good candidates for the relatively few available positions."

Also working at the refinery this summer is Anthony Harris. Not a Shell-son, Anthony is here in connection with the Shell Incentive Scholarship Program. This is a company-wide program where scholarship winners, nominated by their universities, receive tuition, fees, and certain other expenses. Also, if feasible, summer employment at Shell locations is provided.

Anthony, a mechanical engineering major at Purdue, is applying his education to practical use in Engineering Office this summer.



"I've been workin' on the railroad." Working with full time employee, Larry Dallas, (far right) are summer employees, from left: Don Zalders, Dennis Carpenter, Don Stewart, Mickey Owen, Dale Connors, and John Myler. Summer employees are working a variety of jobs throughout the refinery.

Employees learn about the "Birds 'n Bees"

Birds...

If offshore drilling rigs spawn schools of fish (and they do), refineries must draw flocks of birds. Judging from reports throughout the refinery, Wood River has been adopted as home by a number of different species.

Instinctively these timid creatures realize that our refinery is a safe and comfortable place to build their nests and raise their young. It isn't just because there are many tall, steel and concrete "trees" in this forest either, because nests barely three feet off the ground have been found.

You, yourself, probably know of several nests which are tucked away in unlikely places in the refinery. This is a story about just one of them.

In the northeast corner of the Research Lab's lube-stock tank yard there is a manifold shed. It really isn't much of a shed, but it does have a roof at least.

Nestled among the pipes and valves, about six feet off the ground, is a robin's nest. Up until a couple weeks ago there were three of the hungriest of baby robins in that nest. They have now grown up and flown off to make their own nests, but for a long time after hatching the first week of May they kept mama

and papa busy with what seemed to be non-stop eating.

Where mom and dad found enough worms is a mystery, but it's unlikely they dug up much of a supply within the refinery. According to Gene Lawson, senior lab tech/fuel blending, the parent birds seemed to fly in from the north -- outside the refinery.

Gene said, "I'm not a bird expert, but these may be the same parents that were here last year. At least they renovated the nest that was left, and set up residence in April. I guess they like the neighborhood."

Gene indicated several different nests are found around the Research grounds every year. "Last year we had doves among the pipes right next to the door to our blending building, and the year before a mother robin stayed with her eggs even after workmen had to move the nest."

Whatever their reasons, birds in number have chosen to make the refinery their home. If they can learn to live with us, we can certainly learn to live with them. But remember what Woody says, "For your own protection, wear your hard hat."



Home sweet home among the pipes and valves. Vince Lintzenich of Research caught this papa robin preparing to feed his brood while mother was away on the continual search for food. Many birds have chosen the refinery to nest.

A .914 meter-stick for the future?

Last December we published an article on the possibilities of the United States going to the metric system and the effects of such a move on the oil industry. But have you thought about what the metric system would mean to us as individuals? The immediate changes--converting recipes, working with different measuring devices, and staying within posted speed limits--are obvious. But what about those favorite expressions, phrases and songs that will have to be rewritten? Here are just a few of the updated versions that come to mind.

- *I love you 35.238 liters and 8.809 liters.
- *31.103 grams of prevention is worth 0.373 kilograms of cure.
- *Take everything he says with 0.0648 grams of salt.
- *First down and 9.140 meters to go!
- *I wouldn't touch that with a 304.800 centimeter pole.
- *1.524 meters, 5.080 centimeters, eyes of blue, has anybody seen my gal?
- *He won't budge 2.540 centimeters.
- *Roll out 158.970 liters and we'll have 158.970 liters of fun.
- *There was a crooked man and he walked a crooked 1.609 kilometers.

We're looking for others and you can help us out.

Just for the fun of it, send your examples to Bill Gibson, editor, here at the Refinery, and we'll schedule the most amusing ones for a future issue.

Bees...

"I parked my truck at the BEU shutdown and had only left it there for a few minutes. The next thing I knew it was swarming with bees!"

Indeed Duke Ducommun's welding truck was swarming with thousands of honey bees apparently intent on making it their new home. According to two refinery bee experts, Charlie Kovarik, tractor operator, and Hal Kesinger, patrolman, the bees were following their queen bee and when she chose Duke's truck they attached to it en masse.

"There could be a couple reasons they were looking for a new home," said Charlie. "During the season bees never stop working to gather honey. Sometimes they gather so much they don't have room in the hive for both themselves and their honey, so they move on. Other times a new queen bee is born so part of the colony takes off with the old queen to seek new quarters. No hive is big enough for two queens."

Hal, who came from home on his day off to try to gather up the bees and give them a more suitable "hive", said, "When bees are swarming like this they aren't likely to sting you because they are full of honey for the big trip, and generally more intent on their journey than stinging you. That doesn't mean they won't defend themselves if provoked, however."

During the entire episode, bees crawled all over both Charlie and Hal without stinging either one even once.

"Bees have a regular society with specific duties, such as workers, baby sitters, guards and so on," said Charlie. "All the workers, etc., are females. Male bees, or 'drones' don't do anything except one time during a queen bee's life one of them fertilizes her so she can lay eggs. These worthless characters pay for it, though, because when the first frost comes they are forced out of the hive to die since there is a limited amount of honey to last the winter. Many of the worker bees don't even last a full summer because they literally work themselves to death."



Hal Kesinger carefully sifts through bees clinging to the windshield wiper. If he can locate the queen, the others will follow. Lending a helping hand is Ollie Wilhold. Both are patrolmen in Safety.

Hal added, "The queen bee is the center of the hive because only she can lay fertile eggs to continue the species. A young queen can lay up to 2,000 eggs per day. No wonder they protect her so well!"

"In a hive or in a swarm she is surrounded by thousands of workers. If you can get their queen, the rest will follow you anywhere. She won't sting you either because she knows once a bee stings, she dies."

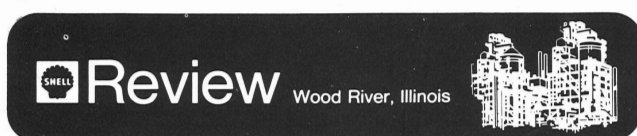
Hal continued, "A queen being born is not an accident. When a queen dies or gets too old to consistently lay eggs, the other bees 'make' a new queen by feeding a normal female larva royal jelly. Don't ask me how the magic takes place, but she ends up two to three times larger than her sisters and is the only one capable of laying fertile eggs."

Unfortunately, the queen in this swarm was too far under the dashboard of the truck to locate, so Hal was unable to attract all the bees. He estimates he was able to scrape off 30 percent of them and ended up with about 4,000.

Both Charlie and Hal agree that although bees should be treated with a great deal of respect, they need not be totally feared. Just like the rest of us, they just want the opportunity to live their lives without undo interference.



Charlie Kovarik, tractor operator, is a bee-keeping hobbyist. Demonstrating that swarming bees are generally indifferent to humans, Charlie observes a small part of the swarm from close range.



VOL. 36, NO. 5 WOOD RIVER REFINERY JUNE, 1973

Published monthly for the employees and pensioners of Shell Oil Company's Wood River Refinery and Research Laboratory.

Bill Gibson, editor

SHELL OIL COMPANY
P. O. Box 262
Wood River, Illinois 62095

Bulk Rate
U.S. Postage
PAID
Wood River, Ill.
Permit No. 229