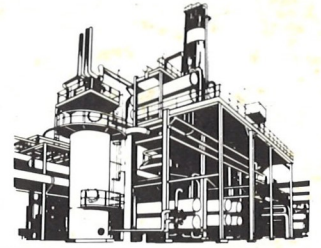




WOOD RIVER REVIEW

WOOD RIVER MANUFACTURING COMPLEX



VOL. 48, NO. 1 JANUARY 1985

Fastest in U.S.

Super high-speed motors offer considerable energy savings

Major Projects work at the catalytic cracking and hydrocracking units will mark a first for Wood River, Shell and the U.S. In September 1985 the Complex will begin operating two high-speed variable-speed electric motors at CCU-2. The 5,000-plus rpm (revolutions per minute) motors will replace the steam turbines that drive the unit blowers. The maximum speed of a comparably sized conventional electric motor in the country is 3,600 rpm.

The motors are in the final production stage and will undergo quality testing by the manufacturer prior to installation at the Complex. Identical motors will replace the two steam turbines at CCU-1 during the unit shutdown in 1986.

The change to high-speed electric motors offers substantial energy savings because electricity is less costly than generating steam power, according to **Ray Catlett**, MPO electrical engineer. Additional energy savings will be attained as a result of the motors' variable-speed feature. Rather than operating at a fixed power level, the motors will be adjusted to meet changing process conditions—much like a driver moves a car's accelerator

pedal in traffic.

Larger, slow-speed variable-speed electric motors will replace the CCU-1 wet gas compressor turbine in June 1986, and the fixed-speed electric motor on the hydrocracker hydrogen makeup compressor in June 1985.

Head Office Engineering is overseeing the procurement of the motors by M. W. Kellogg, one of the general contractors for Major Projects. Wood River MPO employees will coordinate installation, checkout and startup of the motors and related equipment.



Laborer Jim Bratton selects the winning entry for January in the Safety Calendar Contest. Bob Wooff, an electrician, won a color television set. The next drawing takes place Feb. 15 in the Cafeteria. At left is Mary Kay Campbell, of the Safety Motivation Committee.

In Memoriam



John E. Brown

John E. Brown, 33, died Jan. 23 in the explosion and fire at the Dewaxing and Deasphalting unit. Mr. Brown,

an operator from Bethalto, had six years of service with Shell.

Services were held Jan. 26 at Smith Funeral Home in Bethalto. Burial was at Roselawn Cemetary, Bethalto.

Mr. Brown is survived by his son, Erik, 11, of Bethalto; his father, Edward, of Bethalto; and three sisters, Marilyn Schoenbaum of Moro, Judith Unterbrink of Bethalto, and Gloria Brown of Florissant.

Donations are requested for the building fund of the Bethalto United Presbyterian Church, where Mr. Brown was a member.

1985 HOLIDAYS

January 1	- New Year's Day
April 5	- Good Friday
May 27	- Memorial Day
July 4	- Fourth of July
September 2	- Labor Day
November 11	- Veterans Day
November 28	- Thanksgiving Day
November 29	- Day After Thanksgiving
December 24	- Christmas Eve
December 25	- Christmas Day
January 1	- New Year's Day (1986)

Shell pilot reunited with good buddy named Cessna

For **Don Speight**, it was like seeing an old friend after being apart five years. The friend in his case is a Cessna Skyhawk single-engine airplane which he left at the St. Louis Regional Airport in Bethalto while working at Shell's Woodbury, N.J. Chemical Plant.

"I had every intention of taking the plane back east but unfortunately there were no adequate storage facilities near my home," said Speight, who transferred to the Complex last fall. "So, for five years I flew rental planes while my own sat idle in Illinois."

Speight, an engineer in EOS, has been flying since 1963 when he earned his pilot's license during an 18-year assignment at the Complex Lab. Two years ago he qualified for an instrument rating which allows him to fly in low-visibility weather. The rating required 50 hours of instrument-only flying—a special hood prevented Speight from looking out the cockpit windows. His instructor, however, had full visibility.

As a pleasure flyer, Speight restricts his trips to fair weather conditions. But in this part of the country you never know what is going to happen "up there", cautioned Speight. Many times he has taken off in calm, sunny



Preparing for takeoff from the St. Louis Regional Airport (Bethalto) is Don Speight. A pleasure flyer, Speight and his copilot wife, Shirley, often travel by air to areas in the midwest and southwest.

weather only to confront a storm several miles away. On one occasion he and his wife, **Shirley**, were returning from Cape Girardeau when they encountered a thunderstorm near Bethalto that forced them to land in Highland until it passed through the area.

"It's difficult for us to make many round trip flights in the Midwest because of the unpredictable weather," said Speight. "We have successfully flown to places in Illinois, Texas and Kentucky, but ended up returning on commercial airlines. Small planes can't safely handle stormy weather like the big jets."

Speight's Cessna is the second plane he has owned; the first was a Piper Tri-Pacer he bought in 1974. The plane was not flyable at the time but with the help of friends Speight completely rebuilt the craft. A year later he transferred from Wood River to Houston and flew the plane to Texas where he sold it in 1978.

The 1969 model Cessna is newer and larger than Speight's previous plane, although it too seats four people including the pilot. He paid \$11,000 for the plane and said a brand new one today would cost nearly \$80,000.

"Flying is an expensive hobby, no doubt about that," Speight pointed out. "Excluding the fixed costs such as maintenance and storage, the plane consumes \$18 worth of fuel an hour. That can add up on a long trip."

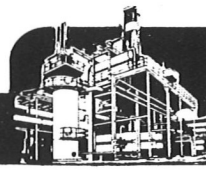
A good portion of the expenses associated with owning a plane are maintenance related, Speight said. He and retired Shell employee **Ken Kruckeberg** take care of all maintenance chores for the Cessna. In fact, Kruckeberg kept the plane in top shape while the Speights were in New Jersey so all that is needed now are some cosmetic improvements like new carpeting and other touches.

Speight admits he is a little rusty but plans to make up for lost flying time by becoming current on his instrument rating now that his plane is available. Upcoming trips include Houston, West Texas and other locations within a few hours of Bethalto. With a cruising speed of 115 miles per hour, the Cessna puts Speight and his wife in easy reach of several weekend and vacation getaway places. As he says, you can cover a lot of ground traveling in a straight line at an air speed of 100-plus m.p.h.

(Continued on page 7)



Don Speight checks a fluid level on his Cessna Skyhawk. The Wood River engineer earned his pilot's license in 1963 and purchased his first plane 11 years ago.



Bob Wells, left, helps Distilling operator Bill Simmons adjust the fit of a respirator mask. Wells coordinates the Respirator Fit Test Program involving the fitting and testing of respirators for about 1,150 Complex employees.

Preventive health a full-time job for Industrial Hygiene

The dictionary defines industrial hygiene as the science of health in the workplace. **Bill Cunningham**, senior industrial hygienist, would replace "health" with "preventive health" to more accurately describe the function at Wood River Manufacturing Complex.

"Our job is to identify those workplace conditions that might adversely affect the health of our employees, and then eliminate or reduce the impact of these conditions to safe, acceptable levels," said Cunningham. "We follow Shell and federal occupational health standards in controlling exposures to chemicals, gases, vapors, dusts, noise, radiation and other conditions."

The Industrial Hygiene (IH) staff has grown to four employees from only one in 1979, a reflection of the company's commitment to preventive health and an increase in government health regulations. Cunn-

ingham, **Matt Carroll**, **Terry Rodeheaver** and **Bob Wells** each have a full slate of projects that keep them busy monitoring and improving Complex working conditions.

To protect the health of employees, IH is involved in five ongoing activities. The first is identifying health risks by evaluating the levels of exposure to chemical and physical materials. Consideration is given to material toxicity (poison level) and the potential degree of exposure. Results are then compared to safe levels of exposure as set by Shell and such agencies as Occupational Safety & Health Administration (OSHA) and the American Conference of Government Industrial Hygienists.

Second, IH develops the strategy required to manage the risks through engineering or work practice controls, or perhaps protective equipment.

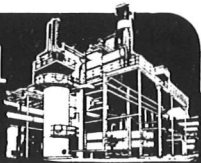
Third, proposed and newly imple-

mented health regulations are monitored by IH personnel. IH serves as a liaison with Head Office and keeps Complex management informed of the potential impact regulations might have on Wood River operations. Last year, IH was involved in the Benzene Historical Exposure Study and the follow-up case control study.

Fourth, Industrial Hygiene recognizes the need to provide information to employees so they can effectively participate in protecting their own health. Training sessions, video-tape programs, reports and consultations are conducted for occupational and other types of exposure.

Finally, IH reviews new Complex projects and purchased materials, provides input for engineering controls, maintenance and construction contracts, and participates in shutdown planning teams.

"We are always looking to prevent excesses in exposure levels," said



sampling pumps. The devices are worn by employees, usually for one shift, and collect air contaminants. A lab Cunningham. "Right now we perform tests for more than 40 kinds of substances in the Complex and are unaware of any excess that is not or cannot be controlled."

To accomplish these tasks, IH stays up to date on developments in the occupational health field. The employees maintain close contact with corporate health and safety functions including Industrial Hygiene, Medical and Toxicology; and with industry and government organizations such as Chemical Industry Institute of Toxicology (CIIT), American Industrial Hygiene Association (AIHA), National Institute of Occupational Safety & Health (NIOSH), OSHA and others.

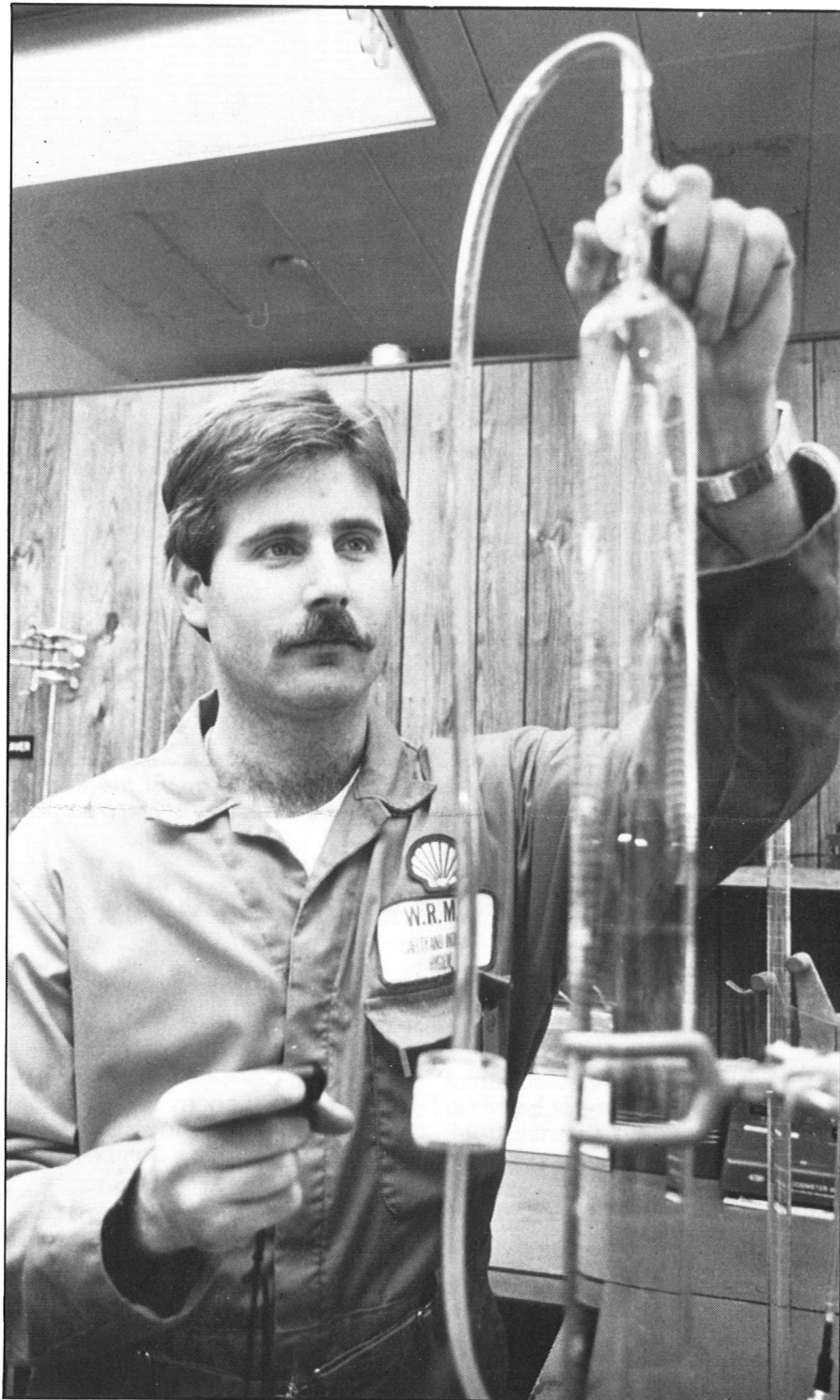
Changes brought about by Industrial Hygiene projects in recent years include elimination of lead base paint, the use of non-silica abrasives for blasting jobs, installing catalytic converters on forklifts to reduce the level of carbon monoxide, and improving the ventilation in vessels for employees during shut downs.

One subject that has been receiving much attention lately is the Worker Right To Know legislation. Essentially, this is a state and federal program requiring the communication of potential workplace hazards to employees. Compliance calls for an active program of communication (Material Safety Data Sheet postings), labeling of containers and employee training. Shell endorses the concept of Worker Right To Know and for the most part has been following the procedures before the regulation was enacted.

Shell's philosophy is that everything feasible should be undertaken to provide a safe and healthy workplace, said Matt Carroll, a recent IH transfer from a field assignment in New Orleans. He said Shell internal health standards are often tougher than those required by government agencies.

Carroll is working on a part of Shell's Health Surveillance Program which tracks employees' exposure to chemical and physical hazards during their employment at the Complex. The extensive project is intended to provide information to help ensure that when employees leave Shell, they have not developed acute or chronic health problems as a result of the WRMC work environment.

An important function of IH is checking the air quality of work areas. Terry

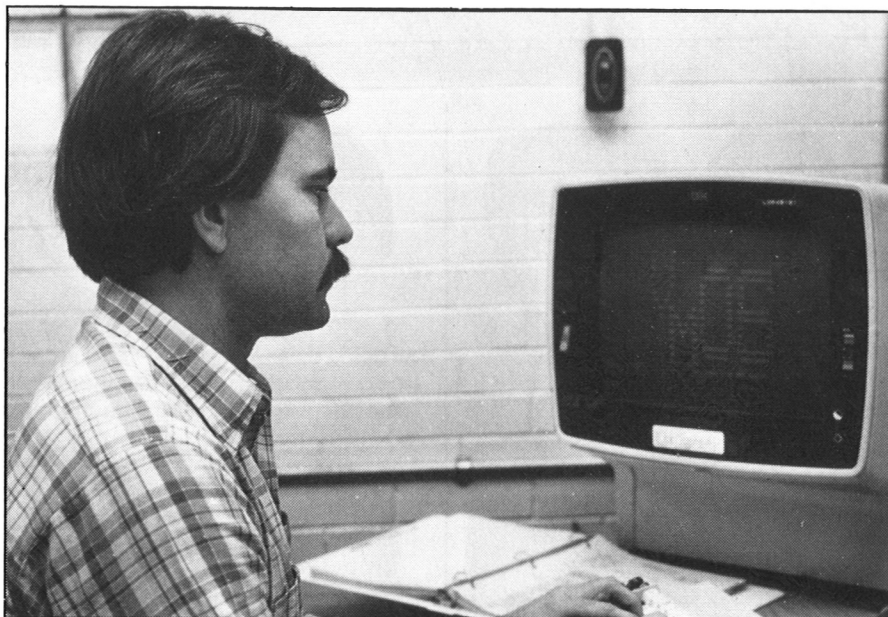
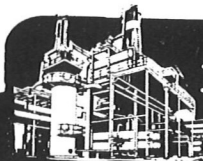


Conducting one of the many tests associated with Industrial Hygiene projects is Terry Rodeheaver. Tests are made for air quality, noise levels, radiation, asbestos and other exposures.

Rodeheaver tests the air by using test then determines how much of what contaminants are present. The pumps are often worn by welders who are exposed to welding fumes, insulators who work with asbestos, and operators and crafts people who are

exposed to various hydrocarbon vapors.

Rodeheaver said exposure to asbestos during insulation removal and other projects can be minimized by wearing respirators, protective clothing, keeping the asbestos wet, bag-



Matt Carroll uses a computer terminal to compile data for the Health Surveillance Program which tracks employees' exposure to the work environment at Wood River. He recently transferred from an Industrial Hygiene assignment in New Orleans.



Bill Cunningham and Tom Brady, both of Safety & Industrial Hygiene, discuss the placement of caution signs in the Complex. Shell endorses the concept of Worker Right To Know legislation, a government program that requires notification of potential hazards to the work force.

ging it promptly and then placing the material in a designated dumpster.

Special meters are used to determine the noise exposure levels for operators and crafts employees. The procedure is part of the Complex's

Hearing Conservation Program which involves noise reduction projects, training programs, hearing protectors and annual audiograms.

Another IH activity is the Radiation Control Program. Gamma rays, used

to check welded pipe integrity, need to be kept at safe levels, according to Rodeheaver. Radiation levels are controlled by fire and safety inspection permits, and meters which are used to monitor radioactive sources. In addition, Safety inspectors, laboratory employees and EP&S inspectors wear film badges to keep track of any radiation exposure they may receive while on the job.

For the past two years, Bob Wells has been coordinating the Respirator Fit Test Program in which approximately 1,150 employees were fitted and tested with respirator masks.

Wells explained that respirators provide breathing protection in work areas with contaminated atmospheres. Two types of masks are available: air purifying which is basically a filter system for low concentrations of benzene, asbestos, welding fumes, SO₂, catalyst dust, etc., and atmosphere supplied respirators for high concentrations of materials.

During the fit testing, an employee puts on a respirator that has a probe attachment to allow the air inside the facepiece to be sampled. The employee then enters a test chamber where a measured amount of a harmless aerosol is present.

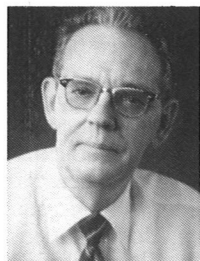
Wells monitors the effectiveness of the respirator by way of a control panel outside the chamber. He calculates a fit factor by dividing the concentration of aerosol in the chamber by the concentration in the respirator. Employees are checked out for specific types of masks depending upon their jobs. Retesting is performed every two years.

Respirators used for testing and in jobs throughout the Complex are cleaned, maintained and stored at the Purchasing Warehouse by **Larry Hargrave**. He handles 50-60 masks a day.

Cunningham said occupational health is a field of constant change given the steady flow of new technology, medical findings, federal regulations and a raised health consciousness by the general public. Keeping pace or ahead of industry health standards has the IH group on their toes.

"A person's health has to do with his or her susceptibility to sickness or disease, personal lifestyle, living environment and occupational exposures," said Cunningham. "We can't do much directly about the first three conditions, but protecting the health of Shell employees at the Complex is our full-time job."

Anniversaries

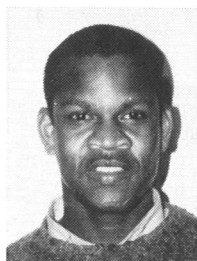


Jack Malone
EP&S
30 Years

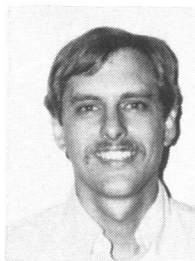


Al Slivka
Financial
30 years

New to WRMC



Leon Bailey, Jr.
Laborer



Phil Beall
Alkylation

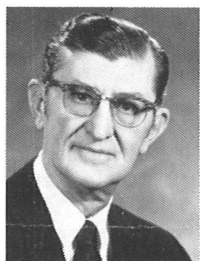


Linda Branham
Laborer

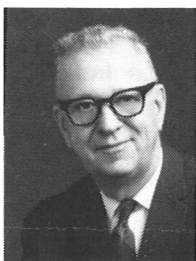


Bill Brenneman
Org. Effectiveness

In remembrance



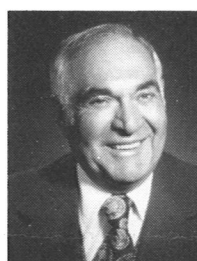
G.C. Hedges



W. Volma



J.M. Wilhite



L. Vitali



A.M. Barnwell



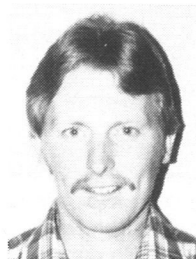
W.B. Johnson



H.A. Schulmeister



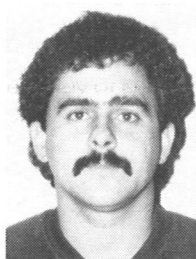
H.C. Gill



Russell Cripe
Laborer



John Kasten
HOP-Operations



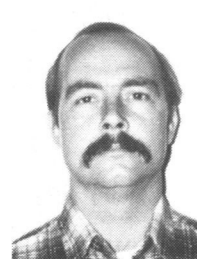
Mark Kirksey
Laborer



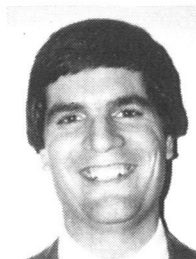
Edie Koch
Financial



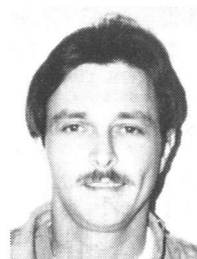
Kathy Nelson
HOP-Operations



Tom Saathoff
Laborer



Charlie Skaer
EOS



Ken Williams
Laborer

Gerald C. Hedges, 73, died Dec. 8. Mr. Hedges was an operations foreman, Cat Cracking, before retiring in 1972 after 40 years of service.

William Volma, 77, died Dec. 12. Mr. Volma was an oil accounting supervisor, Treasury, before retiring in 1972 after 43 years of service.

Jesse M. Wilhite, 71, died Dec. 17. Mr. Wilhite was an operator 1, Aromatics East, before retiring in 1975 after 30 years of service.

Louis Vitali, 66, died Dec. 22. Mr. Vitali was a pipefitter 1, Maintenance, before retiring in 1981 after 27 years of service.

Alva M. Barnwell, 95, died Dec. 28. Mr. Barnwell was a pipefitter 1, Maintenance, before retiring in 1951 after 15 years of service.

William B. Johnson, 93, died Jan. 2. Mr. Johnson was a pipefitter helper 1, Maintenance, before retiring in 1949 after 20 years of service.

Henry A. Schulmeister, 80, died Jan. 5. Mr. Schulmeister was a yardman, Engineering Field, before retiring in 1963 after 31 years of service.

Hershall C. Gill, 69, died Jan. 12. Mr. Gill was a valve repairer 1, Maintenance, before retiring in 1977 after 33 years of service.

SHELL SHORTS

Camera Club

The SRA Camera Club will meet at 7:30 p.m. on Tuesday, Feb. 5, in the Cafeteria. **Tonya Tesone** will present a program on Egypt. The print/slide contest theme is "Available Light."

Lewis & Clark

Persons wishing to obtain membership information of the Lewis & Clark Trail Heritage Foundation, Inc., should contact **Ruth Lange**, 5054 S.W. 26th Place, Portland, OR 97201. The Foundation supports activities which enhance the enjoyment and understanding of the Lewis & Clark story.

Shell pilot . . .

(Continued from page 2)

The Complex boasts a number of other pilots who Speight plans to contact about organizing an air convoy to Dayton, Ohio next spring to visit the U.S. Air Force museum. He is also acquainted with pilots who fly out of the Behtalto airport and is active in the Experimental Aircraft Association and the Aircraft Owners and Pilots Association.

Wherever he flies, Speight can take comfort that his wife doubles as a copilot. Shirley holds a seaplane rating, although it is not current. Shirley said it wouldn't take much to renew her active pilot status, but for the time being she is content to leave the driv-



A Shell Companies Foundation grant was recently awarded to the mechanical engineering program at the University of Missouri-Rolla (UMR). The \$100,760 grant will be used to upgrade laboratory equipment and facilities for undergraduate and graduate instruction. Representing Shell at the presentation were **Bill Durland**, Complex manager, third from left; **Irv Doty**, Head Office, fourth from left; and **Don Baker**, Community Relations manager, next to Doty. (Photo courtesy of UMR)

ing to Don.

"My mother tells me that when I was six-years-old I used to drag my folks to the airport to watch the planes takeoff and land," said Speight. "Some people golf and others collect stamps . . . my hobby is flying. Being a pilot and owning a plane is something I've always wanted."

Now that Speight has what he has always wanted, what is next? He is considering earning a commercial license so he can fly for hire—aerial photography, sightseeing, charter, that sort of thing. In the meantime, he is happy to be back at Wood River and near his old friend, Cessna.

Classified Ads

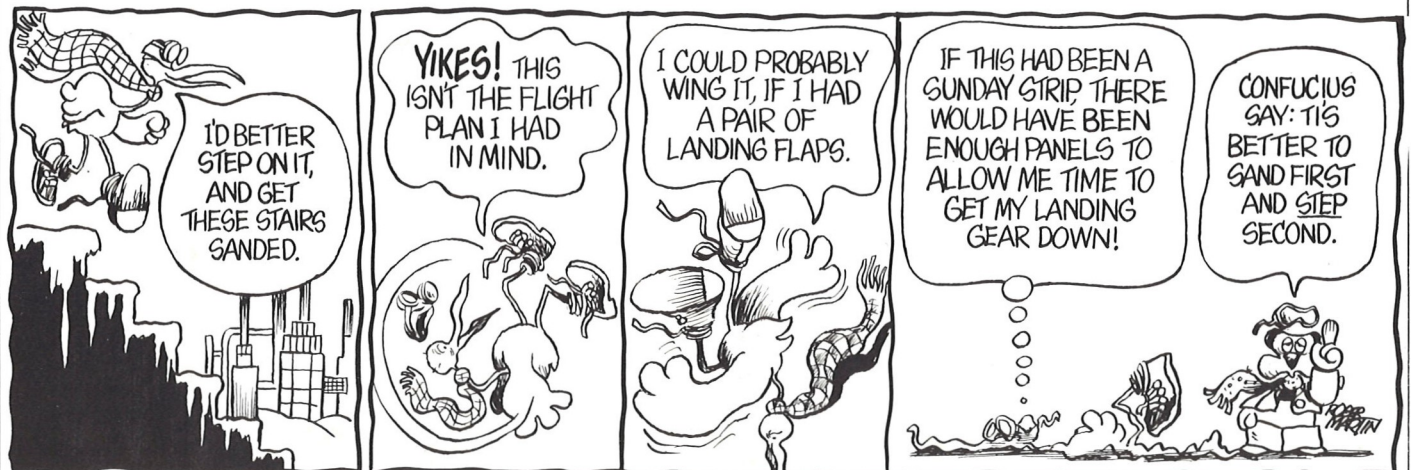
For sale: Remington shotgun, model 870, twenty gauge, modified choke, 28-inch ventilated rib barrel with two and three-quarters inch chamber. Excellent condition. \$175. **Bill White**, 618/656-2346 or ext. 2149.

For rent: House in Alton area, located on Danforth. Three bedrooms. **John Spencer**, 618/465-8243

For sale: AKC registered Siberian Husky puppies, eight weeks old. \$200 each. **J. K. Peiperf**. 618/372-4194

WOODY & CLYDE

THE BIG SLIP UP



Shell favors uniform lead phasedown

Shell has strong feelings on how to get the lead out of gasoline and told the Illinois Environmental Protection Agency so.

In a letter to the IEPA, **Gene Smith**, Manager of Environmental Affairs, Health, Safety and Environment - Head Office, stressed that the lead phasedown effort is best done at the national — rather than state or local — level.

Concerns are particularly high in Illinois because Shell is one of the leading gasoline marketers in the state, with a major manufacturing complex, 700 service station dealers and 26 gasoline wholesalers. While Smith upheld Shell's support of actions to reduce the lead levels in the atmosphere from all sources, he stressed the benefits of a national versus local-level phasedown program.

Phasing down leaded gasoline on a local level would create confusion in the gasoline refining and distribution chain and a competitive disadvantage for dealers along city, state and county boundaries, and ultimately would result in higher prices for the consumer.

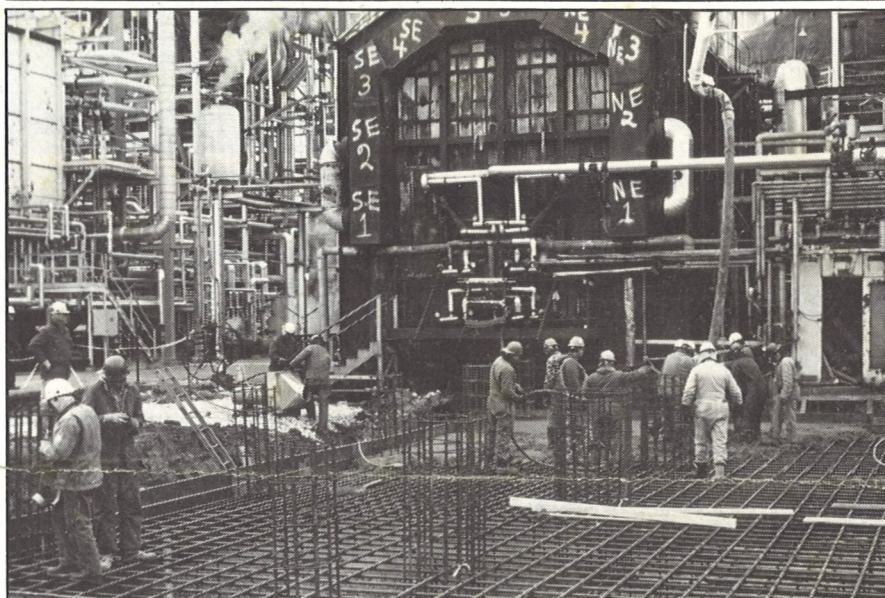
Shell service station dealers and wholesale suppliers located in an area where leaded gasoline is banned will be placed at a competitive disadvantage compared to competitors in nearby counties or cities not under the ban. Shell estimates that dealers located near these boundaries could

lose 30 to 40 percent of their business overnight. Also, supply and distribution problems could result because the current regional distribution systems are not designed to adjust to unique gasoline specifications on a local basis.

Smith concluded, in his letter, that Shell believes a reduction of lead in gasoline should be carried out uniformly, under the direction of the fed-

eral government, within a reasonable time frame and on a national, rather than a local, basis.

The phasedown of leaded gasoline has been proposed by the U.S. Environmental Protection Agency for two reasons: 1) the misuse of leaded gasoline in vehicles designed for unleaded ("misfueling" or "fuel-switching"), and 2) concerns over the adverse health effects of lead in gasoline.



Workers build the foundation for two new furnaces to be installed this fall at Vacuum Flasher-1. The project required 350 cubic yards or approximately 44 truckloads of concrete.

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