

Nuclear Division News



A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 8/No. 11/May 26, 1977



MERCY FLIGHTS — Dennis O. Sparks, an electrical engineer in Y-12, used his plane to good advantage during recent floodings in Kentucky and Tennessee. As a major in the Tennessee Wing of the Civil Air Patrol, he flew Red Cross field workers into the stricken areas. Sparks used part of his vacation for the mercy flights.

Memorial Day honors dead of all wars.

Monday, May 30, is an official holiday for Nuclear Division employees. The nation mourns those who fell in battle, giving the "last full measure" as the price of freedom. Memorial Day began as a salute to Union veterans, but has become, by tradition, a day to honor the dead of all wars.

No employee will be required to be at work, unless his/her presence is required for continuous operations or plant security.

In this issue . . .

An ORNL ecologist recently visited in Spain, studying mercury pollution in the streams near the mining town of Almaden. This story appears on page 2.

Other features:

- Question Box Page 3
- ORGDP promotions Page 5
- Medicine Chest
- Paducah promotions Page 7

Coming soon . . .

Another regular feature is planned for the **Nuclear Division News** soon. There are hundreds of retirees scattered throughout the nation receiving the **News**, as well as hundreds more in this area. We plan a special column dedicated to the problems of retirement, and news of them and items of interest to older persons. Let us hear from you. We will introduce our columnist soon.



NEW GRAPHITE SIGNS—W. Paul Rose, Plant and Equipment Division at ORNL, erects one of the 12 new Graphite Reactor signs which have been scattered over the city of Oak Ridge. The Graphite is the world's only federally owned reactor to be open to the public on a routine basis. Visiting hours are from 9 a.m. to 4 p.m., every day except Sundays and holidays.

A Different Drummer

'Makes me feel good inside—to know there are those concerned'

(Editor's Note: Dennis Sparks, an electrical engineer in Y-12, was active in flood relief this spring in Appalachia in his capacity as director of the Tennessee Wing of the Civil Air Patrol. His story, a Different Drummer with a different twist, follows.)

Sparks and his wife, Charlotte, live in Maryville, with their two children, Angela and Dennis Jr. He has been in Y-12 since 1970, and worked for RCA on the NASA projects prior to joining Union Carbide. He is a graduate of the Tennessee Institute of Electronics. He took vacation in March to help in the vital mercy flights described below.

A Civil Air Patrol plane, bucking 20-knot turbulence, started its final approach to Mingo County Airport, W.Va. — one of the many small landing strips being used to speed Red Cross disaster aid to Appalachian flood victims. As pilot Dennis Sparks, Major, CAP, lined up his Cessna 182 for a final descent from 500 feet, he noticed that a helicopter sitting smack in the middle of the narrow runway (only 30 feet wide in one spot where the rains had washed away the earth) wasn't moving.

Pulling up and circling around for a closer look, he noticed that the chopper had apparently crash-landed and broken its landing struts in so doing.

35 sorties successful

"Guess we can abort this mission," said Sparks to his Red Cross passenger, Grace E. Fossati, a Red Cross disaster specialist from St. Louis, Mo., who was flying in to establish a contact with government officials to determine more specifically what the victims' needs would be.

Although this mission wasn't successful for pilot Sparks, who is director of operations for the Tennessee Wing of the Civil Air Patrol, some 35 other sorties were A-OK.

"I'd say we've put in about 200 flying hours already and have used 15 different craft and 20 of our pilots," said the flyer who started as a CAP cadet in 1957.

"Normally our missions are to search for downed aircraft in the Tennessee area, but we got a call from the Red Cross the same day as the floods hit. They said that some of the worst hit towns were up over the mountains and that driving there would take too long. So we volunteered our entire Wing and put the pilots on 24-hour call.

"We worked out of the Disaster Headquarters in Bristol, Tenn. the first few days and even had our communication van parked at the curb. Since then we've transferred our

operation to the Appalachian Flying Service right at the airport."

Sparks said that the CAP has an agreement with the American Red Cross to provide pilots and planes in time of emergency both to the national organization and to any chapters that need help.

"Normally we get our assignments from the U.S. Army, but in the Appalachian floods, the Red Cross called us direct.

"In those first few days, we transported Red Cross personnel and equipment and supplies to air strips in Virginia and Kentucky. We were shaving five to six hours off the people's trips by flying them in.

"On one of our trips we flew in some tetanus vaccine, because there was great fear at the time that a disease could break out. But most of our sorties have involved flying in Red Cross caseworkers and supplies to the different centers."

Mountain runways

Asked if there were any extremely difficult missions, Sparks replied with a slight grin: "Yeah, just trying to get into that Mingo County Airport was a tough one. Normally these small airstrips are about 60 feet wide, but when we found out that the strip at Mingo was only 30 feet wide at one spot (because of the wash-out that undermined the runway), we decided to send in only our most experienced pilots. I guess you can say that landing there is comparable to putting a plane down on one of those bobbing aircraft carriers.

"We had another problem at the airport in Prestonsburg. It's in a valley, with a mountain literally at the end of the runway. Our pilots had to use every bit of their expertise getting in and out of there."

Red Cross Disaster Operations Director Ralph Barlow, a veteran of dozens of national disaster assignments similar to the Appalachian floods, said that he has seldom seen the kind of cooperation in a disaster area as was manifested by the Tennessee CAP Wing.

"It makes me feel real good inside knowing that there are a lot of groups out there like the CAP — people who have the same deep-seeded concern for their fellow man as our Red Cross workers have.

Courtesy praised

"What success we've had in getting into the hard-to-reach towns quickly can be attributed to the CAP. I know for a lot of our caseworkers, it was their first flight in a small plane. But the pilots and ground crews showed

(Please turn to page 8)

ORNL ecologist visits Spain, studies mercury-polluted region



MERCURY EXPRESS—Gathered around the large buggies used in transporting mercury-rich cinnabar and quicksilver ore from the mines, are, left to right: Juan Pablo Garcia Frades, Almaden Mine metallurgical chief; Sherry A. Janzen, ORNL lab technician; Steve G. Hildebrand, ORNL ecologist; and John W. Huckabee, ORNL ecologist and group leader.

by John R. Hughes

When ORNL ecologist John W. Huckabee, ORNL Environmental Sciences Division, was wading knee deep in the North Fork Holston River, he expected his interest in mercury might keep him collecting fish and plant samples. What he didn't anticipate was that the next river he would wade in was not in the foothills of Tennessee, but near a mining town in Almaden, Spain.

Huckabee specializes in mercury pollution and its effects on the environment. Since the late 1960's and early 1970's, when more than 50 Japanese citizens died of eating fish contaminated with mercury, this form of environmental pollution has become a significant ecological problem.

Tennessee to Spain

But how did an ecologist from Texas, working in Tennessee, end up in Spain?

Huckabee explained that due to the mercury scare in Japan, the Spanish mine experienced a decrease in demand for its products. "The Spanish government wanted the Almaden mine surveyed in order to determine the extent of mercury poisoning to the environment. They hoped that if it could be proven that the mine's mercury wastes were not poisoning the area's ecosystem, demand might increase," Huckabee said.

Huckabee's involvement began in May of 1974, although other studies by the Environmental Protection Agency (EPA) and the University of Rochester Medical School had been under way since 1973.

After some initial research had been conducted by the Spanish government, Huckabee was asked to

work on the project because of his previous studies on the effects of mercury on the environment.

Following his participation in the First International Mercury Congress in Barcelona, Huckabee agreed to examine the mine site. The Spanish government requested later that he return to Spain and conduct extended experiments.

The ORNL Environmental Sciences Division was awarded the research contract through an interagency agreement between the National Science Foundation's Office of International Programs and ERDA.

The Almaden mine is not only the world's largest natural mercury mine, but also the oldest, dating back at least two centuries before the Christian era. Consequently, the area surrounding Almaden has been exposed to mercury waste effluents for more than two thousand years.

Dangers of mercury

"Mercury is potentially dangerous because it is easily absorbed into living tissues where it cannot be readily expelled. After several years these mercury deposits may build up in an organism's tissue, possibly reaching a toxic level," Huckabee said.

Working with Huckabee are Sherry A. Janzen, lab technician, and Steve Hildebrand, ecologist, both of the Environmental Sciences Division. Huckabee noted that he and the other participants were not in Spain to observe the effects of mercury on humans who had eaten contaminated fish or fowl. "I'm an ecologist, not a toxicologist," Huckabee said. "In any case the Rochester University group was studying that relationship. Our primary concern was the extent to which the mercury had contaminated the mine's environment."

The ORNL team had very little time for sightseeing while in Spain. Each day they were out in the field collecting fish, plant, bird, soil, water and sediment samples for laboratory analysis in Spain and at ORNL.

"During the 1975 trip we set more than 350 mousetraps at three locations, just keeping ahead of the ants stripping the bait," Huckabee said. Bird samples were also difficult to come by.

Experiments benefit others

For the government of Spain the goal of the research is economic in nature. If the findings show no ill effects to Almaden's environment, business at the mercury mine might improve. But for Huckabee, the Almaden mine provided perhaps the world's best experimental station for mercury pollution experiments.

In April, Huckabee returned to Almaden for the final time to wrap up the four-year experiment. This trip will conclude the sample gathering. In the months ahead ORNL scientists will analyze the remaining samples, then organize and correlate all the information from laboratories at ORNL and Almaden to, hopefully, find an answer to Spain's question.

Spain might get some good news. Early findings indicate that most of the samples analyzed contain acceptable levels of mercury by U.S. standards. Regardless, Huckabee said he believes it was a worthwhile experiment in terms of acquiring information into the environmental distribution and effects of mercury that could benefit the whole world.



KNEE DEEP—Researchers collect aquatic samples, used to determine mercury levels in water, from the North Fork Holston River. Waders, left to right, are: Sherry A. Janzen, ORNL Environmental Sciences Division; Paco Sanz, Spanish biologist; and John W. Huckabee, ORNL ecologist.

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TAT Project

The Training and Technology (TAT) Project, operated jointly by Oak Ridge Associated Universities and Union Carbide in the Y-12 Plant, offers training in five areas — welding, physical testing, machining, mechanical operations and drafting.

Interested persons may enroll in this six-month program through the Oak Ridge High School Adult Education Office. For further information contact Charles E. Elder, plant phone 3-5968.

question box

If you have questions on company policy, write the Editor, Nuclear Division News (or telephone your question in, either to the editor, or to your plant contact). Space limitations may require some editing, but pertinent subject matter will not be omitted. Your name will not be used, and you will be given a personal answer if you so desire.

Smoking in offices

QUESTION: In the section of offices where I work, over 50 percent of the people smoke, some of them almost constantly. I find this not only uncomfortable but I would also be very much surprised if the air quality in an office of a smoker meets OSHA standards. I could care less for a person smoking in his own office except that my job requires frequent contacts with these people. I hesitate to say anything for fear of creating trouble with people I otherwise like very much. What is the Company policy toward this matter of non-smoking employees' health?

ANSWER: Except in areas where smoking would present a fire hazard, Company policy is presently informal and encourages the development of mutual understanding and consideration among involved employees. Smoking is a matter of personal preference; however, it is desirable for employees to communicate with each other where the practice is causing discomfort to some.

There are currently no OSHA or other consensus standards for exposure to tobacco smoke. Concern for the comfort of employees has resulted in some conference room signs urging voluntary consideration of non-smokers.

Many employees have effectively dealt with this problem in their own offices by displaying "No Smoking - Please" signs and removing all ash trays.

Vehicle check at portals

QUESTION: Since Laboratory security has been tightened to the point where all government vehicles are checked, why aren't outside vehicles, such as vendor trucks, inspected?

ANSWER: All vehicles, including vendor trucks, are visually inspected when entering and leaving the gates at ORNL.

Educational assistance

QUESTION: "We certainly encourage our employees to upgrade their educational background," was part of a recent answer in this column. My question is to what group or department does this policy apply? We have been told that special shifts cannot be created to accommodate employees wishing to upgrade their education. We can supply specifics, names, dates, etc., where this has been done.

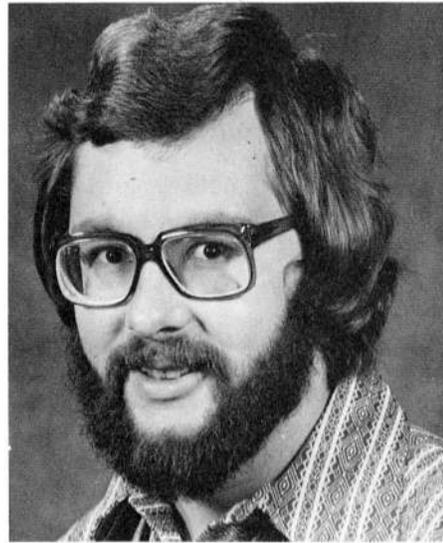
ANSWER: The provisions of our University Study and Educational Assistance programs are clear indications of the Company's intent in assisting our employees to upgrade their educational background.

In certain instances involving our salaried employees, it has been possible to arrange special working hours or reduced working schedules to accommodate their educational programs. Whenever a schedule change is proposed, however, it must clearly be shown that the individual's job can be carried out in an efficient manner under the new schedule.

In most cases, the shift preference and other provisions of our collective bargaining agreements for hourly employees interfere with assignment to a special shift so that an individual may pursue his or her educational goals.

Job classifications

QUESTION: If your supervisor won't give you your job classification (says he doesn't know) and he doesn't want you to talk to the division head or the department superin-



Dr. Phillip W. Turner

Turner named to medical staff

Phillip W. Turner, M.D., has joined the Medical Staff at the Y-12 Plant.

A native of Kingsport, Dr. Turner is a graduate of Transylvania University and took his M.D. at the University of Tennessee Medical School at Memphis. He interned at UT Hospital in Knoxville.

Married to the former Teresa Ann Bomar, he lives at 2426 Pennsylvania Avenue, Maryville. They have a daughter, Kara.

tendent, where else can you get this information? I understand you can go to Wage Standards for this information. If you do, do they, in turn, notify your supervisor you have asked for this information?

ANSWER: Your supervisor has the responsibility of knowing what your job classification is and should tell you. This information is readily available to him from the Division Office or the Salary Office. If he refuses, and if you prefer not to take the matter to your Division Superintendent or Director, then the Salary Office at your installation will tell you your job classification without notifying your supervisor of your request.

safe thinking ...

CAT LITTER — Some drivers carry a bag of cat litter in their car trunks. The gritty litter can be used to give a car increased traction in snow or on ice.

wanted ...

ORNL

CAR POOL MEMBERS from areas of West Outer, Waddell, Pennsylvania or Hillside, Oak Ridge, to East Portal, 8:15 to 4:45 shift. Tom Burnett, plant phone 3-6939, home phone Oak Ridge 483-1975.

Fireproof your home ...

Good housekeeping tips:

1. Keep your attic, basement, closets, garage and yard clean of rubbish.
2. Keep paint in tightly closed metal containers.
3. Store gasoline and other flammable liquids in safety cans, well away from both heat and children.
4. Never use flammable liquids like gasoline or kerosene for cleaning clothes or starting fires.
5. Make sure that furnaces, stoves and smokepipes are in good repair and far enough away from combustible walls and ceilings.
6. Be certain no clothes, curtains or furniture are near any stove, heater or fireplace.
7. Keep the chimney cleaned and checked regularly as insurance against chimney fires.
8. Be sure that roof covering is fire retardant.

Electrical do's and don'ts:

9. Never run extension cords under rugs or over nails.
10. Maintain appliance and other wires in good condition.
11. Check appliances periodically to be sure they are in good operating condition.
12. Do not overload your circuits with extension cords.
13. Ground your TV antenna with a lightning rod.

Pre-planning for fire:

14. Plan at least two ways to get out of every room in your house.
15. Rehearse fire drills regularly with your family, especially the children.
16. Keep exit routes clear.
17. Make sure bedroom windows are large enough and low enough to serve as emergency exits.
18. Learn how to notify your fire department quickly and correctly.

Child care precautions:

19. Make it a rule never to leave small children alone or unattended.
20. Show your babysitter the escape routes from your home, and give instructions on the right way to call the fire department.
21. Know the first rule of fire safety emergencies: Get everybody out fast and don't go back in.
22. Train your children to keep a safe distance from flame or spark sources.
23. Keep matches and lighters out of the reach of children.



SWEEPING INTO SPRING — The Paducah Plant is promoting a cleaner environment by observing next week as Spring Clean-Up Week. This year's slogan, "Planning by Objective—A Ship-Shape Approach to Safety," emphasizes a distinct correlation between good housekeeping practices and the continuing efforts of all employees toward established safety goals. Members of the committee are, from left, Hugh A. Vantrees, chairman; Viola Davis, Marvin L. Sheffler, Joseph R. Wright, Ernest R. Johnson, Mary McDougal, James K. Luton and Marvin L. Ramer. Not pictured is William S. Jones.

division deaths

George W. Green, a librarian in the Technical Services Division at ORGDP, died May 7 at the Oak Ridge Hospital.

A native of Westport, Tenn., he joined Union Carbide in 1946, after serving with the U.S. Army in the Philippines during World War II.

Survivors include his wife, Minnie Barclay Green; son, Michael Wayne Green; and daughter, Linda Lou Green. Two brothers, Robert and Max Green, and a sister, Carolyn Lewis, also survive.

Funeral services were held at the Weatherford Mortuary, with burial in Anderson Memorial Gardens.

The family has requested that any memorials be in the form of gifts to the East Tennessee Heart Association.



Mr. Green

Charles A. Golden, supervisor in industrial safety and applied health physics at ORNL, died May 9 at the University of Tennessee Hospital.

Mr. Golden was a native of Mississippi and came to work for ORNL in 1945.

Survivors include his wife, Maveline Wilson Golden; two sons, Miki E. Golden and Daniel W. Golden; two daughters, Mrs. Sandra Higdon and Judy C. Golden; mother, Mrs. Etta Golden; brother, Glen H. Golden; and six grandchildren.

Burial was at the Tennessee Valley Memory Gardens in Anderson County.



Mr. Golden

Lendell G. Farrar, research associate in the Analytical Chemistry Division, ORNL, died May 12 in Oak Ridge Hospital, following a lengthy illness.

A native of Camden, he came to ORNL in 1953 after receiving his B.S. degree in physical chemistry from Vanderbilt University. He was a member of the American Chemical Society and the American Nuclear Society and had recently worked on hazardous chemicals in materials of environmental concern.

Mr. Farrar is survived by his wife, Meta Caldwell Farrar, and a brother, Dr. James T. Farrar.

Funeral services were held May 14 in the chapel of Martin Funeral Home with burial in the Anderson Memorial Gardens.

The family requested that memorials be in the form of gifts to the American Heart Association in care of Mrs. Evelyn Brooks, Hamilton First National Bank, Jackson Square.



Mr. Farrar

Four from ORNL AAAS fellows

Editor's Note—Since some errors were found in last issue's AAAS fellows story, the corrected article is being rerun.

Four ORNL staff members have been named fellows of the American Association for the Advancement of Science (AAAS) for excellence in scientific research.

Charles F. Baes Jr. and Carlos E. Bamberger, ORNL Chemistry Division, Loucas G. Christophorou, senior staff member in the Health Physics Division, and David G. Gosslee, group leader in the Computer Sciences Division, received the AAAS award for contributions to their fields.

(The announcement of Gosslee's fellowship was received after the original story came in from AAAS. It is included in this correction.)

AAAS fellowships are awarded to scientists who have produced a body of work on behalf of the advancement of science which is scientifically distinguished or which has high social significance. Nominations are made by colleagues in the same field who submit their candidate's material to the AAAS for consideration.



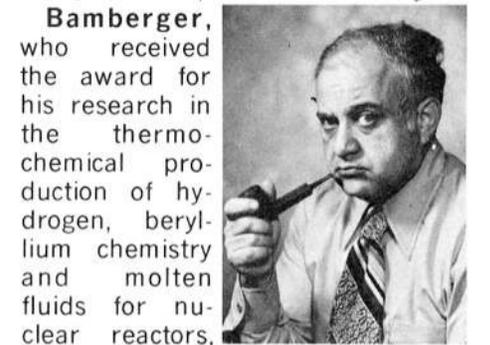
1920-77

Baes, a native of Ohio, was honored for research in the physical chemistry of solvent extraction, molten salt systems and hydrolytic behavior of metallic ions.

He received his bachelor's degree in chemistry from Rutgers University in New Jersey and his master's and Ph.D. degrees in physical and inorganic chemistry at the University of Southern California. Baes also conducted postdoctoral work in extractive metallurgy at Columbia University School of Mines in New York.

Baes joined the ORNL staff in 1951. He and his wife, Julia, live at 102 Berwick Drive, Oak Ridge. They have two

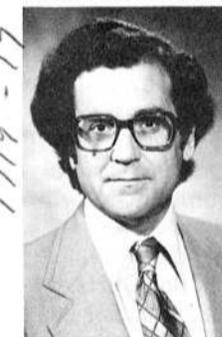
daughters, Linda Marie and Sandra Jean, and a son, Charles F. III. 2006-77



Bamberger, who received the award for his research in the thermochemical production of hydrogen, beryllium chemistry and molten fluids for nuclear reactors, is a native of Germany but was educated in Argentina.

Bamberger received the American equivalent of the master's and doctoral degrees in chemistry from the University of Buenos Aires. He first worked at ORNL in 1961-1963 under an International Atomic Energy Agency fellowship where he conducted research in beryllium chemistry. He returned to ORNL in 1966.

Bamberger and his wife, Elena, live with their two sons, Gustavo and Roberto, and daughter, Karen, at 165 Nebraska Avenue, Oak Ridge.



1919-77

Christophorou received the award for his research into the physics of polyatomic molecules, electron-molecule interactions and negative ions.

Originally from Cyprus, Christophorou received his bachelor's degree in physics in Greece and his master's, Ph.D. and doctor of science degrees from the University of Manchester in England.

Christophorou joined the ORNL staff in 1963 and is currently a professor of physics at the University of Tennessee and a member of the American Physical Society. He and his wife, Eratoula, live with their two daughters, Penny and Yianna at 121 Nebraska Avenue, Oak Ridge.

Gosslee, a native of North Dakota, was honored for his contributions to the field of statistics, in particular biometry, consulting, teaching and publications on methodology and collaborative research.



4622-76

A member of the Computer Sciences Division since 1961, he heads the statistics sections in the Mathematics and Statistics Research Department. In addition to his duties at ORNL, Gosslee is an instructor at the UT-Oak Ridge Graduate School of Biomedical Science.

In 1947 he received a B.S. in mathematics and education at Minnesota State University at Moorhead; an M.S. at Iowa State University in 1950; and a Ph.D. at North Carolina State University in 1956.

Gosslee is a member of the Biometrics Society, a member and fellow of the American Statistical Association, and also belongs to Sigma Xi, an honorary research society.

Gosslee and his wife, Lela, live at 106 Indian Lane, Oak Ridge. They have three children, Scott, Kent and Robert.

patents granted . . .

To Victor M. Hovis, Jr., and Walter G. Northcutt, Jr., both of Y-12, for "Beryllium Fabrication Process."

To John D. Sheppard and Long S. Tong, both of ORNL, for "Apparatus for Monitoring Two-Phase Flow."

To Richard H. Stevens, Douglas N. Mashburn and Harold C. Woodall, all of ORGDP, for "Traversing Probe System."

Summer housing needed for students, co-ops

Temporary housing for summer students and co-opping employees is needed in the local area around Oak Ridge.

If you have rooms or housing, contact Kathy Rick, Central Employment, extension 3-4442.



NEW MEMBERS ADDED—New members are added to the ORGDP Affirmative Action organization, and are shown at a recent meeting. The six new additions are, seated from left, Amado Melendez, Barrier Manufacturing; Frank E. Horton, Operations; Gwendlyne Stafford, Maintenance; Michael C. Willard, Employee Relations; Sam A. Thompson and Kay Perry, Security and Plant Protection. Standing are B. Wayne McLaughlin, ORGDP Plant Affirmative Action coordinator; W. Gary Johnson, Computer Sciences; Joyce B. Ferguson, Technical Division; Harry J. Brown, Finance Divisions; Vickie L. Houston, Finance, Materials and Services; W. Eugene Rooks, Engineering; Fay B. Duncan, Operations Analysis and Planning; and Joanne Gailar, Nuclear Division Equal Opportunity coordinator.

about people...



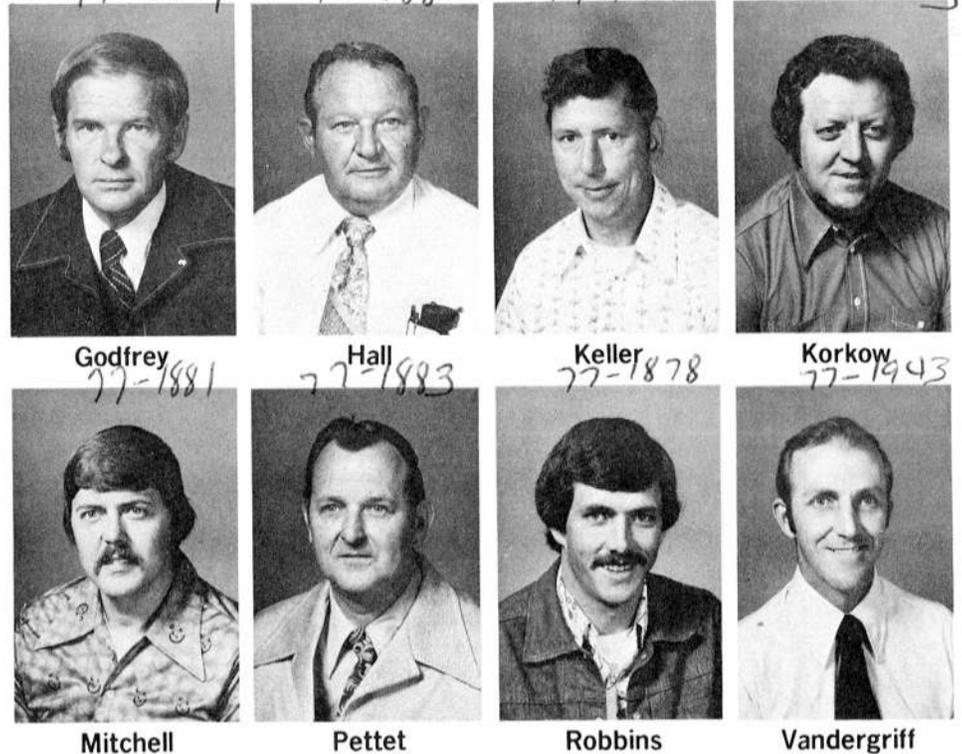
172862
V.C. Jackson, Y-12 Product Certification Division, has been named a Fellow in the American Society for Non-destructive Testing, in recognition as a member of unusual professional distinction who has made continued significant contributions to the advancement of non-destructive testing.

In 1951, Jackson assisted in organizing and was the first chairman of the Oak Ridge Section of the ASNT. As a charter member and his continued membership, he has been awarded the society's 25-year pin. He has also held past positions in the American Chemical Society and the American Society for Metals.

Jackson was a member of the original management team, planning and beginning the Training and Technology Project in Y-12 in 1965. In connection with this effort, he was appointed to the faculty of the University of Tennessee in the development of their Department of Industrial Education structure and curriculum.

A graduate of Bethany College, he and his wife live at 115 Berwick Drive, Oak Ridge. They have two children.

Eight assume new jobs at ORGDP



Eight employees at ORGDP have assumed new job responsibilities, as Bobby W. Godfrey has been promoted to a laboratory supervisor in Technical Services; Hubert L. Hall has been named a training instructor in Operations; Oliver F. Keller Jr., a supervisor in Maintenance; Ronald H. Korkow, a maintenance supervisor also; Wilburn S. Mitchell, Thomas E. Pettet and David C. Robbins, all supervisors in Barrier Manufacturing; and James G. Vandergriff has been named a supervisor in Operations.

Godfrey, a native of Benton, has spent most of his life in Oak Ridge. He joined Union Carbide in 1956 and transferred to Y-12 in 1961, then back to ORGDP in 1974.

He and his wife, the former Mildred Shaw, live at Route 2, Niota. They have a son, Robert.

Hall, a native of Speedwell, has been at ORGDP 31 years. He was in the U.S. Army four years and worked at Bethlehem Shipyards during World War II.

He and his wife, the former Nelle Rice, live at Route 6, Oakwood Avenue, Clinton. They have five children, Douglas, Sam, Donna, John and Roger.

Keller, a native of Jacksonville, Fla., worked with Boeing Aircraft before joining Union Carbide in 1975.

He and his wife, Mary, live at Route 3, Kingston. They have a daughter, Jeannette.

Korkow was born in Sioux City, Iowa, and grew up in Salem, Ore. He spent 20 years in the U.S. Navy, most of which were in submarine service. He joined ORGDP last year.

He and his wife, the former Virginia Meredith, live at 312 Elmwood Drive, Knoxville. They have three children, Kelley, Carolyn and Ronald.

Mitchell, a native of Oliver Springs, worked in law enforcement and for Allied Chemical before joining Union Carbide 18 months ago. He is currently attending Roane State Community College.

Mrs. Mitchell is the former Sandra Gaines, and the couple lives at Route 1, Westshore Estates, Harriman. They have two children, Tina and Steven.

Pettet was born in Hendersonville, N.C. and attended Central Wesleyan College, before joining Union Carbide eight years ago at the Y-12 Plant, transferring to ORGDP in 1975. He was with Ampex Corporation prior to that time.

Mrs. Pettet is the former Lila Crowe, and they live at 118 West Arrowwood Road, Oak Ridge. They have four children, Deborah, Theresa, Eddie and Terrell.

Robbins was born in Jamestown, and was a teacher in Fentress County before joining Union Carbide in 1976. He has a B.S. degree from Tennessee Technological University.

He and his wife, Linda, live at Route 1, Oliver Springs. The couple has two children, Rhonda and William.

Vandergriff was born in Knoxville, and is presently attending the University of Tennessee Evening College. He has been at ORGDP four years, working in Y-12 prior to that time, as a chemical operator.

He and his wife, the former Rebecca Cunningham, live at 7401 Chartwell Road, Knoxville, with their daughter, Lisa.

anniversaries

Y-12 PLANT

30 YEARS

Robert S. Morris, Engineering Division; E. Allen Donahue, Dispatching Department; Glen I. Davis, Guard Department; Robert T. Rose, Stores Department; Dorothy L. Brashears, Chemical Services; and Lonnie L. Bailey, Tool Grinding Department.

25 YEARS

Clifford A. Moore, Aubrey R. Smith, Otis M. Vermillion, Albert A. Armour, Joe A. Wallace, William B. Motley Jr. and Thomas C. Little.

20 YEARS

Riley Goodman.

ORGDP

30 YEARS

William O. Gentry, Instrument and Quality Assurance Development; Kermit E. Short, General Accounting Division; Jewel C. Sweat, Computer Sciences Division; and Mildred E. Freytag, Purchasing Division.

25 YEARS

Ellen B. Queener, Luther Hooks, John F. Shea, Robert J. Groben, Clint Sulfridge, Shipley Johnson, Paul H. Harley and A. J. "Gus" Legeay.

20 YEARS

Henry C. Norris Jr., Bobby L. Carter, John H. Peer and Richard L. Clark.

PADUCAH

25 YEARS

Walter R. Bone, Joseph W. Mack, Harold Long, Paul U. Elliott, John D. Armstrong and William G. Billingsley.

ORNL

30 YEARS

Sam H. Beasley, Engineering; Herbert M. Buffington, Laboratory Protection; Cova P. Baker, Analytical Chemistry; and Elmer L. Gilbert, Operations.

25 YEARS

Victor A. DeCarlo, Robert D. Parten, Richard P. Cumby, John M. Miller, John W. Fields Jr. and Joseph P. Rudd.

20 YEARS

Harold G. Smith, Wofford H. Akers, Johnnie E. Blevins and Ralph L. Clark.

patents granted...

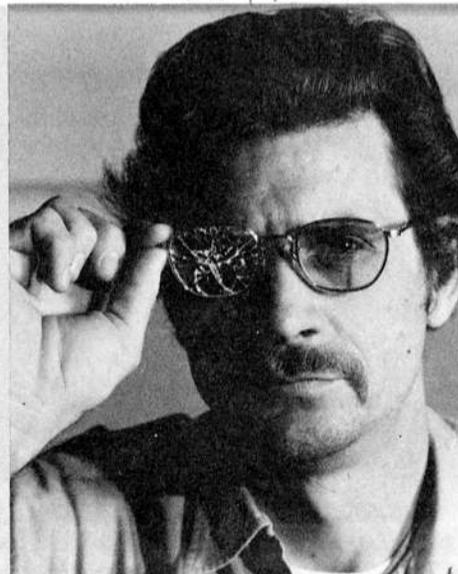
To Walter E. Clark and Clarence Thompson, both of ORNL, for "Immobilization of Iodine in Concrete."

To Bill R. Chilcoat, Dale V. Kiplinger and Ronald L. Beatty, all of ORNL, for "Method for Applying Pyrolytic Carbon Coatings to Small Particles."

Wise Owl No. 30

Thomas C. Wright has become the newest member of the ORNL Plant and Equipment (P & E) Division's Wise Owl Club. His eyesight was probably saved by the wearing of safety glasses.

Wright was drilling a hole in stainless steel with an electric portable hand drill, when the drill broke and a piece struck the lens of his safety glasses. Although the lens shattered, the pieces of the lens were retained, and the eye was not injured. Wright is an electrician in the East Research Services Department. He is the 30th member and fifth electrician in the P & E Division to receive membership in the Wise Owl Club.



Savings Plan-Personal Investment Account

Recent unit values:

	Fixed Income Fund	UCC Stock	Equity Investment Fund
December 75	11.9880	58.7886	7.8231
December 76	13.0554	59.2723	8.8167
February 77	13.2400	58.8646	8.0541
March 77	13.3325	59.9204	8.0002
April 77	13.4258	59.3605	7.9538

Note: Fixed Income Fund unit values reflect interest additions to achieve the guaranteed effective annual interest rate of 8.70% for 1977. Union Carbide stock values are the average cost of stock purchases during the month plus brokerage charges. Equity Investment Fund unit values represent the month-end market value of securities held by the Fund. The price for each unit is determined by dividing the total value of the securities by the number of units in the Fund.

recreationotes



THE WAY IT WAS—No, it's no longer January at the Clark Center Recreation Park . . . but this is the way it looked at the swimming area of the popular spot. Swimming hours will begin Monday, June 6, for visitors, and they are from 11 a.m. to 7 p.m. seven days a week. Certified lifeguards are on duty at all times.

Engineering Picnic Saturday, June 4

The Engineering Summer Picnic is scheduled for Saturday, June 4, at the Clark Center Recreation Park. Festivities will begin at 1 p.m. with entertainment and activities for the entire family.

Music will feature the Sweet Adelines (harmony) and the Briartown Boys (bluegrass). The Tennessee Mountain Cloggers will demonstrate their local home-grown style. An ORAU demonstration of energy generation and pollution control will also be presented.

Athletic events will include both team and individual sports such as swimming, softball, volleyball, tug-of-war, hole-in-one (golf) and horseshoes. A women's volleyball tournament will be one of the afternoon highlights. For those whose talents lie elsewhere, a chug-a-lug contest is also on the agenda.

Organized games, a puppet show and Lucky Lem, the hillbilly magician, will entertain the kids, young and old. An arts and crafts exhibit will feature the wildlife prints of artist Guy Coheleach. His prints will be for show and sale.

The day's highlight will be a barbeque supper served from 5 to 6:30 p.m., costing \$2 for adults and \$1 for children under 12. A drawing for both a children's and adults' door prize will be held after dinner.

Tickets are available from all department secretaries in the Engineering Division.

ORGDP Bowling . . .

The Wednesday League saw the Hi-Rollers win an exciting roll-off with the Amps; the difference in pin falls amounted to only 18. Awards went to Larry Woods, most improved player; Jim Fletcher, highest scratch average — 190; highest handicap game — Wayne Weatherford — 283; and highest series to Roy Dukes — 715.

The Mishaps ended up league champs of the Tuesday League, nine points ahead of the All Steers. The Mishaps team is comprised of G. C. Baker, B. G. Human, G. T. McIntyre, J. K. Phillips, W. J. Redmond and D. H. Tompkins. Walt Rule and John Phillips tied for high scratch series for the season, each with 660. Malvin Strickland came up with the highest scratch game of the year — a rollicking 268.

The Uptowners won the league championship in the ORGDP Women's League, hands down. Oleta Carden scored a scratch game of 267 during the series and Ruby O'Kain took a 612 scratch series. Vickie Houston was the most improved bowler of the year.

Skeet league . . .

ORNL's Vern and Helen Raaen made the April Skeet League a family affair, by taking first and second place in firings. Vern's 48.991 was tops; Helen's 48.720 came in second. Rus Allstun, Y-12, fired third with a 48.165.

Paducah Plant Swimming Instruction Teaching to Teach



EMPLOYEE'S NAME _____

Plant Address _____ Bldg. PAX Phone _____

Home Address _____ Home Phone _____

Number to be enrolled (Check one) 1 _____ 2 _____

Mail to: Darlene McPherson
Recreation Department
Union Carbide Corp.
P.O. Box 494
Paducah, KY 42001

Swimming instructors sought . . .

Teaching youngsters to swim is often a difficult task for many parents. The skill to teach is easy to acquire. Since many Union Carbide parents are some of the best swimming experts, the Paducah Plant is planning to sponsor a summer program geared to instruct parents how to teach swimming. Specific dates and times for the sessions will be determined by the volume of employee interest. The application above is sufficient.

The swimming committee is seeking qualified instructors. Anyone with previous experience in swim classes or instruction should contact Tom Brazzell, at 637 PAX or 437 Bell. All volunteers will be greatly appreciated.

Carbide bowling . . .

The Hi Low's and Chargers tied for first place in bowling in the Monday Mixed League over in Knoxville recently, as Ron Yost rolled a 597 series; and Marilyn Sanders led women bowling with a 613 handicap tally.

The Challengers, who won the last half of the Carbide Family Mixed League, downed the Oops team, winner of the first half in the championship roll-off. The Challengers are comprised of Debbie Shepherd, Carol Zang, Larry Williams and Ray Smith. Season highs went to Jack Beams, 734 handicap series; and Winnie Woody, 656. The League has tentative plans to begin bowling for summer fun June 2.

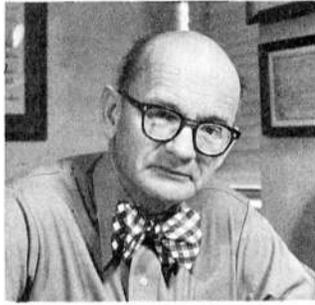
safety scoreboard

Time worked without a lost-time accident through May 19:

Paducah	92 Days	1,177,928 Man-Hours
ORGDP	21 Days	733,800 Man-Hours
Y-12 Plant	93 Days	2,872,000 Man-Hours
ORNL	24 Days	503,689 Man-Hours



STICKING CLOSE TO MOM — The "Swan Pond" in front of Building 6000 at ORNL now boasts five newcomers, born earlier this month. This is the first time in several years that the swans have hatched more than three youngsters.



medicine chest

by T. A. Lincoln, M.D.

(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning health in general. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," NUCLEAR DIVISION NEWS, Building 9704-2, Stop 20, Y-12, or call the news editor in your plant, and give him or her your question on the telephone.)

QUESTION: "My doctor has recently diagnosed that I have Venereal Herpes II; however, in searching for literature on this disease, I have discovered there is none to be found (or at least what is available is very general). Would you cover these questions:

(1) Is this disease curable? I understand that the virus can remain in the body in a dormant stage throughout a lifetime, only emerging when something (?) triggers it. If this is so, does that mean it can be transmitted to anyone coming in sexual contact with an infected person? (2) Can it be transmitted through ways other than sexual intercourse? (eating after other people, kissing, etc.) (3) What is the incubation period? (4) What are the long-term effects if treatment is not administered (male and female)? (5) If a person is infected, is it true that the virus will be transmitted with each sexual encounter? If so, is this true during the dormant stage as well as active?"

Herpes simplex virus

ANSWER: Before concentrating on herpes simplex virus Type II (HSV-2), some background information on HSV infections in general is necessary. It is a complicated and confusing problem.

HSV is probably the most universally present virus in human beings, and two types have been recognized. Several studies suggest that 70-90 percent of adults possess antibodies against HSV Type I (HSV-1), which causes fever blisters or cold sores and an infection on the surface (cornea) of the eye called a "keratitis." HSV-2 causes similar types of lesions on the genital tract but is not nearly so common. Widely varying incidence studies, based on antibody measurements, have been reported varying from as low as 18 percent to as high as 72 percent.

A cold sore, which is the most common type of HSV-1 infection, begins with a burning, itching or tingling place on the lip. After a few hours it develops small, fragile, clear blisters. These blisters rupture within a few additional hours and exude a clear fluid which soon forms a yellow crust as it dries. The sore usually heals in two to three days but, if large, may last a week.

HSV symptoms

The above painful eruption almost always occurs in a person who, as a small child, had a primary or generalized herpes infection. It was so mild as to be inapparent or was

characterized by fever, weakness and blisters on the lips, nose or in the throat, which lasted two to three days. The virus for this primary infection could have been spread by direct contact from person to person or indirectly from eating or drinking from utensils contaminated with saliva. The incubation period was about one week.

From then on, most people keep the virus in their system. They don't have the generalized primary infection again, but they do develop typical cold sores or fever blisters when they are exposed to some stress or their immunity is temporarily impaired. Respiratory infections, fevers, allergies and exposure to sunlight frequently cause the local lesions to break out again. On such occasions they need not have had any exposure from another person shedding the virus. The virus is latent in their system and is merely activated. When the lesion is active, however, it sheds virus from it.

HSV-2 infections on the mucous membrane of either the male or female genital tract look and act much like HSV-1 infections. The original infection is usually venereal and occurs sometime after puberty. HSV-2 can also become latent and then be reactivated when there is some local stress.

Infection from a sexual partner also can occur even in a person who has immunity. For some unknown reason, immunity is a highly variable thing. Sometimes it protects, sometimes it doesn't. The genital lesions of HSV-2 may be small and inconsequential, but usually they are exquisitely sensitive and look much like a cold sore.

Unwitting carriers

The virus of HSV-2 can be spread by any type of venereal contact where a mucous membrane comes in contact with a surface which is shedding virus. A disturbing problem is the possibility of women "catching" the virus from male sex partners who harbor it without being aware of it. Fortunately, it is thought that only about two percent of men or women have chronic infections where the virus is continually being replicated in cells of the genital tract and then shed, even though they have no clinical symptoms. When men or women have a flareup of a latent or contact a new genital infection, they usually have a sufficiently painful lesion to discourage sexual activity.

Although the individual herpetic lesions can be painful, they usually

Paducah plant promotions

Four promotions have been announced at the Paducah Gaseous Diffusion Plant. Bradley R. Barnes has been named an electrical engineer; Allie Branham has been promoted to a utilities foreman; Don C. Lents has been named a health physics technician; and Martin N. Sullivan has been promoted to a senior electrical inspector.

Barnes received his B.S. in electrical engineering from the University of Tennessee, and was formerly with Cumberland Electric. He joined Union Carbide last year, and is a member of the Institute of Electrical and Electronic Engineers. He lives on College Avenue in Paducah.

Branham is an Air Force veteran of 20 years and a native of Hickman, Ky. He has been with Union Carbide 18 months and is currently attending Draughn's Business College in Paducah. He and his wife, Jean, live on Trimble Street in Paducah with their children, James and Evette.

Lents joined Union Carbide two years ago, after receiving a B.S. in geology and sociology from Murray State University. He is married to the



Barnes



Branham



Lents



Sullivan

former Doris Hudson, and they live on Monroe Avenue, Paducah.

Sullivan has been with Union Carbide for nine years following employment with Good Luck Glove Company. He and his wife, Lawanda, live on Hillcrest in Metropolis, Ill. They have three children, Susan, George and Patrick.

next issue . . .

The next issue will be dated June 9. The deadline is June 1.

heal in just a few days. What worries gynecologists is the growing suspicion that in women, HSV-2 infections carry with them an increased risk of cancer of the cervix.

Fifteen years ago, Dr. I. D. Rotkin, University of Illinois College of Medicine, first proposed that early sexual intercourse and multiple sexual partners were the key variables associated with an increased risk of cancer of the cervix. Now there are many studies which show a much higher incidence of antibody against HSV-2 in women who have cervical cancer than in those who do not.

Price of promiscuity

In December, 1975, the **Journal of the American Medical Association** in a news story called the enhanced risk of cancer a "virtual certainty." Dr. Rotkin replied in a letter that the evidence was simply "too shaky and assailable for decisive acceptance." Nevertheless, the concern is growing. Promiscuous young women should take note. Cancer of the cervix may be a price that they will pay late in life for their carefree youth.

There is no treatment available yet for HSV-2, even though drugs have been developed for HSV-1 that are quite effective, at least against the eye infection.

The use of repeated smallpox vaccinations for recurrent HSV-1 is useless and risky and should be stopped. There is much work being done on vaccines for both Types 1 and 2, but so far they haven't been particularly effective. Other than the risk of cancer, HSV infections are usually only painful and a terrible nuisance. Eye infections can be dangerous but now usually can be successfully treated with special chemotherapeutic agents.

Benvegna named Y-12 safety analyst



Benvegna

Ron W. Benvegna has been named a safety analyst in Y-12 Safety Department.

A native of Nashville, he has been with Union Carbide since last year. He is a graduate of David Lipscomb College and has done graduate work at the University of Tennessee-Nashville. Prior to joining Y-12, he was with Aetna Life and Casualty and WSM-TV.

He and his wife, Rovenia, live at 1500 Arrow Wood Road, Knoxville.

wanted . . .

Y-12 Plant

RIDE or will join car pool from Gulfwood subdivision, Knoxville, to East or Biology Portal, straight day. David Hatch, plant phone 3-5761, home phone Knoxville 693-0787.

RIDERS wanted from Norwood section, Clinton Highway, Cherokee Road, Cherrybrook subdivision, to East, North or Central Portal, straight day. J. F. Baker, plant phone 3-5935, home phone Knoxville 947-3396.

retirements



Hubert M. Russell
Y-12 General Machine Shop
24 years service



James A. Martin
Y-12 Development Division
33 years service



Howard I. Huff
Paducah Fabrication and Maintenance
23 years service



James C. Kingcade
Paducah Fabrication and Maintenance
25 years service



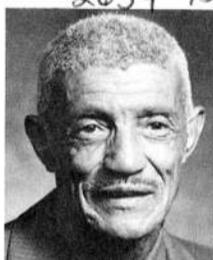
Chester Benjamin
ORGDP Grounds Maintenance
32 years service



Leonard H. Edmonds
ORGDP Maintenance
28 years service



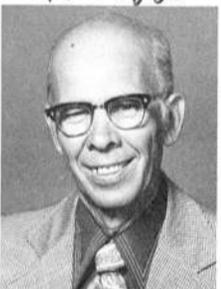
Walter A. Bogdanowicz
Engineering, ORGDP
30 years service



Charlie J. Vines
Plant and Equipment ORNL
26 years service



John H. Epling
ORGDP Barrier Division
32 years service



Felton E. McSpadden
ORGDP Security Department
33 years service



Clarence W. McNelly
ORGDP Finance, Materials and Services
32 years service



James L. Winters Jr.
Engineering, ORGDP
32 years service



Carrie L. Wells
ORNL Biology
30 years service



Alf T. Connelly
Plant and Equipment ORNL
26 years service

The corporate world of Union Carbide ...

Union Carbide made it official last week. The Corporation had previously indicated an intent to move corporate headquarters to Danbury, Conn., but had withheld official announcement until easy access to the site was assured for employees.

Officials have revealed the purchase of about 650 acres of land in western Danbury, and the assignment of the architectural firm of Kevin Roche, John Dinkeloo and Associates to design its new building. A construction schedule and completion target will be announced at a later date, following design approvals by management and by local environmental and zoning agencies.

"I am very much aware of the natural beauty of the environment," stated William S. Sneath, chairman and chief executive officer. "We intend to protect this environment and to maintain its natural beauty."

Preliminary plans indicate a unified office structure of about 1.3 million square feet and an enclosed garage space for about 3,000 cars. The building will be designed for about 4,000 people, with initial population pegged at about 3,500.

The Southern Burn Institute has recognized Union Carbide's Chemicals and Plastics Division for its contributions to the safety of mankind from fire and burn accidents. The Division is being presented the Director's Award in recognition of its fire safety program which represents a total approach to safety education. An important part of the program is a documentary film called "Fire Safety-First Hand" filmed at the Texas A and M Fire School. Union Carbide fire squad members in the area regularly attend the school. The Seadrift plant was also cited for its excellent fire prevention efforts.

* * *

The Linde Division of Union Carbide is currently spending a total of \$70 million on five expansion projects in the industrial gases business. This expansion is designed to meet increasing demands for these products in existing areas as well as for use in new applications and processes. These expansions are being carried out in plants in Alabama, Ohio, Michigan and Minnesota.

Mercy flights

(Continued from Page 1)

our staff workers and volunteers every courtesy and tried to make these short trips under difficult, wind-blown conditions as enjoyable as possible. I know, because I was up in the planes, too!"

Some day soon, when the Appalachian relief operation is completed and most of the 300 Red Cross staff workers have returned to their respective cities and towns, the life style in Appalachia will return to normal as workers go back to the mines, factories, offices, etc.

But for Major Dennis Sparks and his Tennessee Wing of the CAP, it will be business as usual — performing air reconnaissance missions for lost aircraft and their occupants.

Hopefully, the 80,000 victims of the Appalachian floods will take a minute some day soon to say a brief prayer of thanks for the yeoman flying services performed by the Tennessee CAP during April, 1977.

Those who escaped the Appalachian floods can send a cash contribution to the American Red Cross in their respective towns and make their checks payable to Red Cross Flood Relief.

wanted ...

Y-12 PLANT

RIDE WANTED from vicinity of East Knoxville, Fourway on Asheville Highway to any portal, straight day. Home phone Knoxville 522-0964.

RIDE from Dixie Lee Junction area to North or Central Portal, straight day. W. L. Short, plant phone 3-5986, home phone Concord 966-5521.

RIDE from Sugar Limb exit of I-75, Loudon County, to Central or North Portal, straight day. Peggy May, plant phone 3-5241.

ORGDP

VAN POOL RIDERS from West Knoxville area, to Portals 2, 4 and K-1007 area, 7:45-4:15 as well as 8-4:30 shifts. Charles J. Hinton, plant phone 3-3156, home phone 693-7502.

Join or form CAR POOL from Cedar Bluff area, Knoxville, to Portal 4, straight day. Mike Dawley or Ralph Luttrell, plant extension 3-3614, home phone 588-7195.



NATURE'S ACTOR — This female killdeer feigns a broken wing as she leads intruders away from her nest in the East Portal at ORNL. The eggs, lower right, barely can be distinguished from the gravel. (Photo by Jon Q. Thompson)



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