



## Hopkins, Zerby named to key positions



Clyde C. Hopkins



Clayton D. Zerby

Two appointments to key positions have been announced by Roger F. Hibbs, President of the Nuclear Division:

**Clyde C. Hopkins**, manager of PGDP, has been named executive director of ORNL.

**Clayton D. Zerby**, director of the Office of Waste Isolation, will succeed Hopkins as manager of the Paducah Plant.

The appointments are effective June 1.

In his new position, Hopkins will have overall responsibility for the administrative, service and finance and materials functions. He will report to Herman Postma, director of ORNL.

Hopkins, who has been manager of the Paducah Plant since 1972, has been with Union Carbide for 26 years. A native of Brownsville, Tenn., he received his bachelor's degree in accounting from the College of Commerce, Bowling Green, Ky.

Hopkins joined Union Carbide in Oak Ridge in 1952. He was assigned to the Y-12 Plant and was in production control prior to being appointed head of product engineering and scheduling.

### To Paducah in 1972

In April, 1970, he was named manager of Accounting for the Nuclear Division, and two years later was named manager of PGDP.

Hopkins, and his wife, the former Ada Rudolph, also of Brownsville, have two daughters, Cindy and Susan.

Zerby, a native of Cleveland, Ohio, received his B.S. degree in mechanical engineering from Case Institute of Technology, Cleveland, Ohio, and his M.S. and Ph.D. from the University of Tennessee, Knoxville.

Zerby has been with Union Carbide

since 1950 when he joined the staff of ORNL where he served as an engineer, a physicist and a group leader in the fields of nuclear reactor development and radiation physics. He left the Oak Ridge area in 1963 to become a group leader in the Development Department of Union Carbide.

Subsequent positions included manager of Carbide's Defense and Space Systems Department, general manager of the KORAD Laser Department, and president of Ocean Systems, Inc., and Domsea Farms, Inc.

### Returned to Division

Zerby rejoined the Nuclear Division in 1974 as Technical Services manager for the production facilities at Oak Ridge, a position he held until early 1976 when he was appointed director of the Office of Waste Isolation.

He has served on many special committees, including the Atomic Energy Commission's Cross Section Advisory Group and the *ad hoc* committee of the U.S. Air Force's Scientific Advisory Board on Space Radiation Effects.

Zerby is married to the former Patricia Zerkel. They have three children, Cathy, Allyn and Robert.

## W. F. Thomas named assistant manager for Paducah Plant

William F. Thomas of the Fabrication and Maintenance Division at the Paducah Gaseous Diffusion Plant has been named assistant plant manager, succeeding John L. Clark, who retired recently.

As assistant plant manager, Thomas will have overall responsibility for the Cascade Operations, Power, Utilities and Chemical Operations, Finance and Materials, Shift Superintendents and Quality Assurance Divisions.

Thomas has been with the Paducah Plant since 1976 when he was named assistant division superintendent in charge of the fabrication shops and process maintenance.

A native of Orangeburg County, S.C., he received a B.S. in mechanical engineering from the University of South Carolina in 1958, following which he joined Union Carbide at the Oak Ridge Y-12 Plant. He transferred to the Stellite Division at Kokomo, Ind., in 1965 as chief engineer in specialty products.

In 1967, he was named manager of shop operations in the Linde Division's Florence, S.C., plant, and served as manager of engineering, manager of employee relations and plant services, and manager of electric welding and power supply. He was appointed manager of electric welding and organizational development at the Florence plant in 1975.

Active in community affairs, he is a member of the Paducah Night Lions Club and Treasurer of the Paducah Tilghman parent teacher organization. While in Florence, he served as vice president of the Chamber of Commerce and was a member of the United Way Board of Directors.

He is married to the former Bernez Patterson, and they have three children: Gill, William F. Jr. and Phyllis. They live at 4021 Valley Road, Paducah.



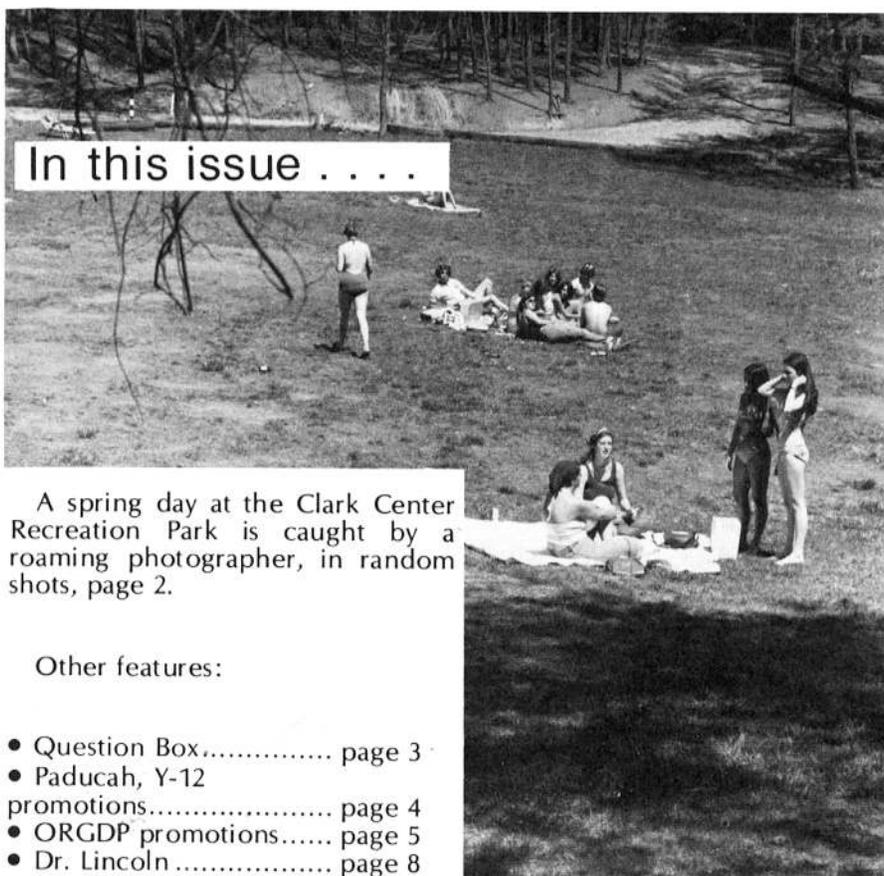
William F. Thomas

## Corporate world of Union Carbide.

UNION CARBIDE will build and operate the world's largest liquid helium plant, scheduled for completion by mid-1979. The plant will be located near Bushton, Kan., approximately 80 miles northwest of Wichita.

The new facility, with a capacity to liquefy 300 million cubic feet of helium per year, will be operated by the Linde Division. It will cost around \$7 million, and will incorporate the latest state-of-the-art in process design, making it the most efficient helium liquefaction facility in the world.

Helium exists in natural gas streams in various concentrations and, today, the most economical method of producing it is to extract it from known natural gas reserves. It is used as a shielding gas in certain welding applications, for pressurizing and purging various systems in the space program, for cooling vacuum furnaces, for use in certain electronic production operations, and in deep diving breathing mixtures.



**In this issue . . . .**

A spring day at the Clark Center Recreation Park is caught by a roaming photographer, in random shots, page 2.

Other features:

- Question Box..... page 3
- Paducah, Y-12 promotions..... page 4
- ORGDP promotions..... page 5
- Dr. Lincoln..... page 8

1578-78

1573-78

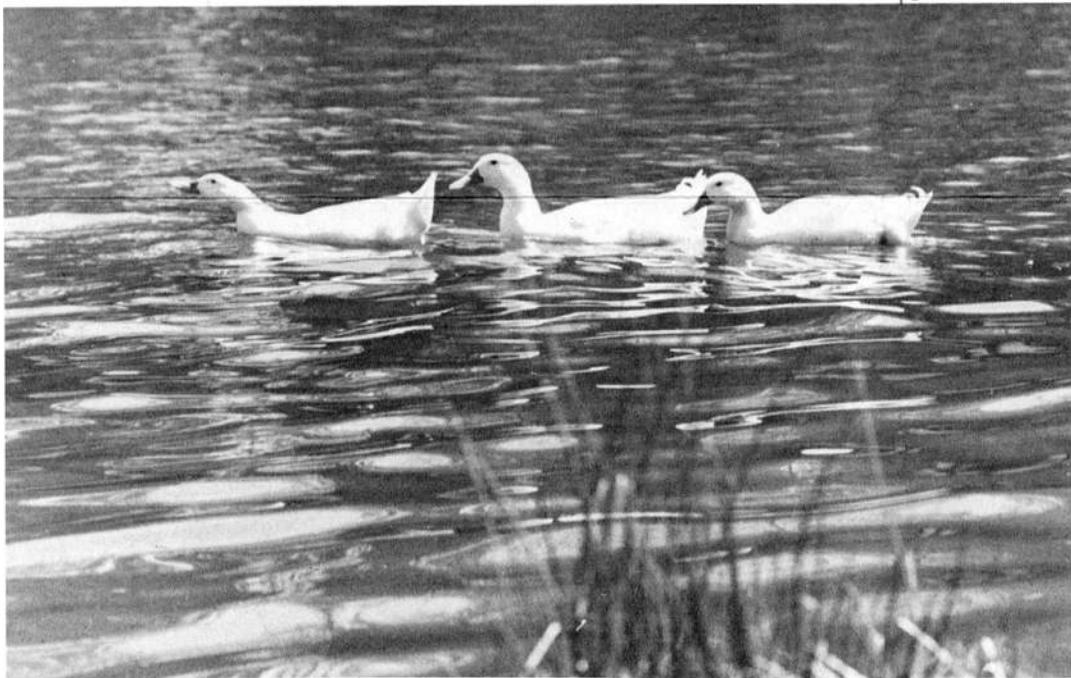


# Clark Center Park offers swimming, boating, sports

1577-78



1579-78



1574-78



1575-78

For those Nuclear Division employees who haven't noticed, spring has hit Clark Center Park with a jolting combination of sunning, boating, fishing, softball, picnicing and swimming.

As illustrated in the accompanying pictures, budding branches, sprouting grass and re-appearing wildlife are fast replacing the ice-dipped trees and snow-blanketed grass of winter.

Spencer Hill, son of Y-12 employee L. Gordon Hill of Product and Engineering and Scheduling, tried out the park's excellent fishing opportunities.

Enjoying another park recreation are retiree Al. G. Burris and his wife, Lil, who spent their afternoon boating. Burris worked as an employee supervisor at ORGDP until 1974.



*Last of oil...*

## Energy trends by year 2020

The projections are chilling: by 1990 energy consumption in the United States will be double that of 1970...as each morning dawns in 1980 (two years from now) we will need nearly 8 million barrels of oil more than what we produce...at the rate things are going the world will probably see its last drop of oil around the year 2020.

As for industry, it uses more than 40 percent of all energy consumed in the land. And yet—perhaps most chilling of all—an estimated 25 to 30 percent of that energy is being wasted.

Oil and natural gas will go; that is indisputable, a fact beyond our control. The only reins left in the hands of man is the ability to stretch out the dwindling supplies. To use every drop of what is left while developing other sources. To keep inconvenience from plummeting to catastrophe. To buy a little time. (Instrument and Apparatus News)

### next issue...

The next issue will be dated May 25. The deadline is May 17.



**INVENTORS' FAIR PANELIST**—J. Don Griffin, right, patent agent in the Nuclear Division's Law Department; Marty Adler, Oak Ridge Chamber of Commerce; and Stephen D. Hamel, DOE patent attorney; served as panel participants during the annual Appalachian Inventors' Fair, held in May at the American Museum of Atomic Energy. The fair featured a two-part workshop for inventors on the "Protection, Evaluation and Financing of New Ideas." Many Nuclear Division employees were members of the fair's organizing committee, including Martin J. Skinner, Nuclear Division Law Department, who served as general chairman.

## Electric heating boom

By 1985, more than half the homes in the Tennessee Valley are expected to be heated electrically, according to ORNL researchers.

This projection is contained in a report, "The Growth of Electric Heating in the TVA Area," by G. S. Gill, G. S. Maddala and Steve Cohn of the Energy Division's Energy Conservation Section.

The report uses data from the TVA power system, along with per capita income, costs of alternative energy sources and weather indexes to predict future trends in the use of electricity.

It is estimated that if per capita income and natural gas prices, in real terms, increase 3.4 percent per year from 1975 to 1985 and the price of electricity rises 1.8 percent per year, the proportion of electrically heated homes could increase to 53 percent by 1985. However, if the price of electricity does not increase during this time period, electrically heated homes could approach 60 percent in the TVA region.

Supplemental data taken from 1975 to 1977 indicate that the number of homes using electric heating had increased from 40 to 42 percent, thereby confirming the projected trend.

## 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.

### Personal activities

**QUESTION:** What is Company policy on employees doing needlework when not busy during the work day? Also, personal calls to family, friends, shops, etc., and visiting in the lounge?

**ANSWER:** Employees are placed on the payroll for full-time work. Normal work schedules and full job duties should not allow time for needlework or idle time in lounges, and this should not be permitted during normal working hours. Nonpaid lunch periods, pre- and post-work times are not included as time worked, and the diversion of needlework may occur at such times. Company telephones are for business use, and personal calls should be limited to absolute necessities.

### Pension computation

**QUESTION:** How much of your last five years' pay average is figured into your Union Carbide pension? Overtime, shift premium, pay-in-lieu of vacation, weekend pay... are any of these factors used?

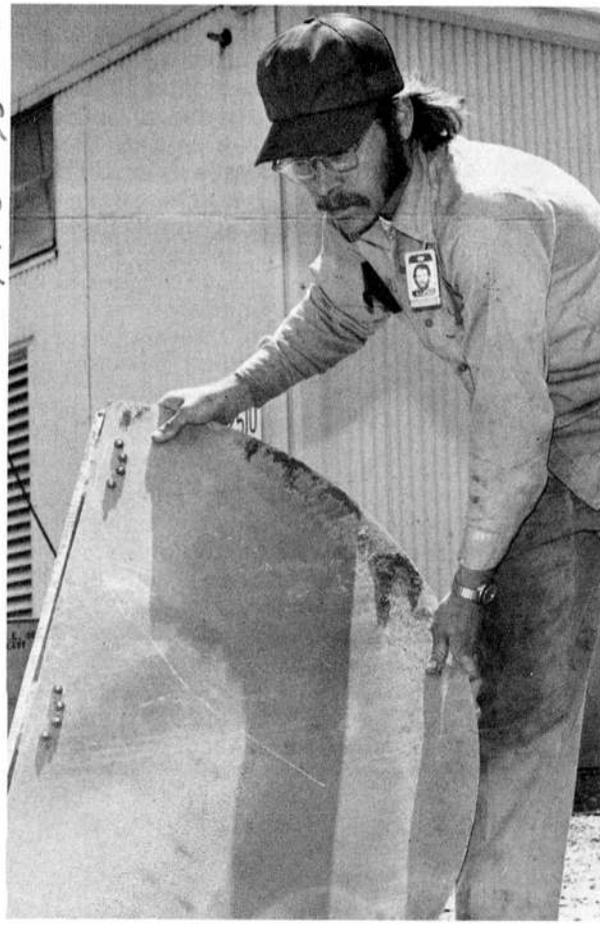
**ANSWER:** Your Union Carbide pension is based on average straight-time earnings for the highest three years in the last ten years worked. The earnings are computed by determining an average straight-time rate and multiplying this rate by the **regularly scheduled** hours. **Actual** earnings may be much different,

depending on whether the actual hours worked are more or less than scheduled. In determining the average straight-time rate, pay for time not worked, such as jury duty, funeral, vacation, voting, and personal time is included, together with the equivalent hours. The straight-time portion of overtime pay, along with the equivalent hours, is included in the calculation. When shift differential is paid, it is included in the average rate calculation. The intent is to provide an earnings figure which accurately reflects the average straight-time earnings which the employee would have received for a full schedule with no absences and no overtime.

### In-plant spittoons

**QUESTION:** Can spittoons be placed around ORGDP for those people who chew tobacco? Someone recently took my newspaper and put it into a trash can. I found it at lunchtime, but it was dirty with tobacco juice. Please help.

**ANSWER:** We can appreciate your annoyance over the fate of your newspaper, but we are sure you can recognize the difficulty in identifying where spittoons might be justified. About the only help we can offer is an appeal to those employees who elect to "chew"—please have consideration for your co-workers, especially our custodial employees.



**EASY DOES IT**—J. L. Martin, a millwright in the Plant and Equipment Division, recently earned membership in the Golden Shoe Club. As shown in the pictures taken at ORNL's Steam Plant, Martin was rolling a hinged manhole cover when the hinges disengaged, and the rolling cover struck the toe of Martin's safety shoe. The shoe's leather was badly torn, but Martin's toes escaped injury. The fourth member of his craft to save a foot from injury, Martin is the 30th P&E member in the Golden Shoe Club.



### Planner-estimators take ORGDP course

PH 78-1419



**PLANNER-ESTIMATORS TAKE COURSE**—These planner-estimators in the Maintenance Division at ORGDP have just completed an intensive course of instruction covering a wide range of subjects. They are, from left, Russell A. Cooper Jr., Edward M. Ingram, Tommy Summers, Virney E. Houston and Farrell C. Jackson. Instructor Bill Weber, Labor Relations, is at the right.

A group of planner-estimators in the Maintenance Division at ORGDP recently completed an intensive course of instruction.

This is the first of a group that will receive similar instruction aimed at full implementation of the Maintenance Management Systems at ORGDP. The planner-estimator has solid craft experience and a demonstrated ability to plan work, and is a key element in the proper management of any maintenance job.

The course of instruction includes a wide range of subject areas such as: timekeeping, labor relations, materials acquisitions, math and blueprint reading, work order control, quality assurance, basics of planning and standard data. Practical exercises in planning for shop, general field, electrical, machining, pipefitting and welding jobs are also part of the curriculum.

### Three promoted at Y-12 Plant

179962



Glandon      Reece

The Maintenance Division in the Y-12 Plant has promoted three men. Raymond C. Glandon, Vaughn W. Reece and Morris Sherles Jr. have been named foremen.

Glandon, a native of the Oak Ridge area, is a graduate of the Tennessee Institute of Electronics. He served in the U.S. Army Corps of Engineers and worked as a radio technician before joining Union Carbide in 1954.

Mrs. Glandon is the former Clara Bridges. They live in the Claxton community and have three children, Jackie, Timothy and Theresa.

Reece was born in Bonny Blue, Va., and served in the U.S. Air Force before joining Union Carbide in 1954.

He and his wife, the former Barbara Huff, live at Route 2, Lenoir City. They have two daughters, Suzanne and Catherine.

Sherles, a native of Russellville, Tenn., came to Y-12 in 1965. He attended Morristown College and Knoxville Business College and is presently attending the University of Tennessee. Prior to joining Union Carbide, Sherles was with Berkline Furniture.



Sherles

wanted. . .



### Y-12 PLANT

**ONE CAR POOL MEMBER** from Lonas Drive area, West Knoxville, to North or Pine Ridge Portals, straight day. Art James, plant phone 3-5453, home phone Knoxville 588-7147.

**JOIN CAR POOL** from Western Plaza, Knoxville, to North Portal, straight day. J. R. Martin, plant phone 3-5871, home phone Knoxville 588-1270.

**FORM or JOIN CAR POOL** from Ebenezer Road, Cedar Bluff area, Knoxville, to West or Pine Ridge Portal, straight day. Dan Dent, plant phone 3-7814, home phone Knoxville 690-4908.

Mrs. Sherles is the former Revonda Hanks, and they live in the Bellaire Subdivision in Morristown with their three children, Rhonda, Francena and Ursula.

### ORGDP

**VAN POOL RIDERS** from Oak Ridge to Portal 2, 3 or 4, 7;45-4:30 shift. R. C. Boals, plant phone 3-9471, home phone Oak Ridge 483-3797.

### ORNL

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

**CAR POOL MEMBER** from West Haven Subdivision, Knoxville, to East Portal, 8-4:30. Debra Swaggerty, plant phone 3-1987, home phone 522-1834.

**CAR POOL MEMBERS** to share driving from West Hills or Deane Hill areas, Knoxville, to East Portal, 8-4:30. Chris Flanary or Mildred Gregg, plant phones 3-6366 and 3-1836, respectively.

**CAR POOL** from Emory Heights, Oak Ridge, to East Portal or East Parking area, 8:15-4:45. Gerry Scott, plant phone 3-1922, home phone 482-4533.

**RIDER WANTED** from Karns/Ball Camp area, Knoxville, to any portal, 8-4:30. Neil Griffith, plant phone 3-6422, home phone 690-1876.

**FIFTH CAR POOL MEMBER** from West Knoxville area to South or West Portals, 8-4:30. Betty Hill, plant phone 3-6441, home phone 690-2962.

**WILL JOIN CAR POOL** from 237 West Tennessee, Oak Ridge, to East Portal, 8:15-4:45 shift. Dave Williams, plant phone 3-6771, home phone Oak Ridge 483-4429.

**CARPOOL OR RIDE** for the summer faculty participant (early June to late August) from vicinity of Pennsylvania Avenue and Outer Drive, Oak Ridge, to East, North or West portal. E. Sonder or R. A. Weeks, plant phones 3-1736 and 3-6896, respectively.

### division death...



Mr. Cross

Mr. Elery D. Cross, a pipefitter in ORNL's Plant and Equipment Division, died April 24.

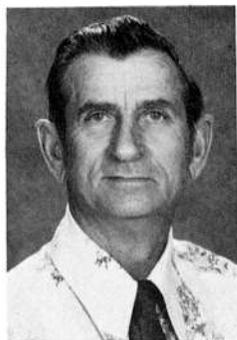
A native of Oneida, Tenn., Mr. Cross joined Union Carbide 24 years ago. He was a mason, former scoutmaster and a veteran of World War II.

Immediate survivors include his wife, Mildred, and son, William O. Long.

Funeral services were conducted by West-Collins Funeral Home with burial in Oneida.

178-52

### retirements.



Millard M. Maples  
Y-12 General Shops  
32 years service



Woodford F. Spencer  
Central Management  
ORNL  
27 years service



Will Wright Jr.  
Paducah Power, Utilities  
and Chemicals  
25 years service



Gerald D. Wyatt  
Paducah Fabrication  
and Maintenance  
27 years service

### safety scoreboard

Time worked without a lost-time accident through May 4:

Paducah.....	286 Days	3,668,733 Man-Hours*
ORGDP.....	28 Days	995,400 Man-Hours
Y-12 Plant.....	22 Days	606,000 Man-Hours
ORNL.....	109 Days	2,528,050 Man-Hours

\*New high for plant

### Dividend declared

The board of directors of Union Carbide has declared the corporation's 244th consecutive dividend. The amount is seventy cents a share on the outstanding capital stock of the corporation, payable June 1, to stockholders of record on May 5, 1978. The last quarterly dividend was seventy cents a share paid March 1. In 1977, the total amount paid was \$2.80 a share.

# ORGDP tells promotions

PH 78-1456 PH 78-1225



Hamby



Johnston

Two promotions are announced at ORGDP. William R. Hamby was named a field quality representative in the Technical Division, and Jesse E. Johnston Jr. was promoted to a supervisor in Separations Systems.

Hamby, a native of Whitley, Ky., grew up in Clinton. He served in the U.S. Navy 20 years before joining Union Carbide in 1976.

Mrs. Hamby is the former Delores Lane. The Hambys live at Route 3, Oliver Springs, and have three children, Peggy, Brandy and William Jr.

Johnston is a native of Nashville and joined Union Carbide in 1975.

He is married to the former Linda Cogswell. They live at Route 2, Glen Circle, Powell, with their daughter, Cynthia.

## patent granted...

To Robert L. Brown, ORNL, for "Cryogenic Expansion Joint for Large Superconducting Magnet Structures."



RECEIVES AWARD—Dean A. Waters, left, is congratulated by John Deutch, director of the Office of Energy Research at DOE, as he accepts the Ernest O. Lawrence Memorial Award. Frank Press, White House science adviser, looks on in the center. Waters was honored for his leadership and engineering inventiveness in the development of gas centrifuge systems for the enrichment of uranium, including the development of end caps, suspension systems, and supercritical modes of operation and the introduction of improved materials and fabrication procedures. The award included a citation and \$5,000.

# PGDP promotions announced



Page



Griffin



Timmons



Gourieux

The Paducah plant has announced the promotion of Donald E. Page to supervisor trainee, Cascade Operations; Jerry L. Frensley to supervisor, Electrical Department; Trent Griffin to supervisor, Fabrication Shops; E. David Gourieux to supervisor, Cascade Operations and Linda J. Timmons to clerk, Materials Department.

Page, a Paducah native, joined Union Carbide in April, 1974, in the Cascade Operations Division. He was formerly employed as a clothing salesman. Page, his wife, Donna, and their son, Brent, live on Ramona Drive, Paducah.

Frensley also joined PGDP in 1974. He was previously employed by the Lexington Blue-Grass Army Depot.



Frensley

He is a graduate of the Institute of Electronic Technology and has completed the Lincoln Extension Institute Management Course. Frensley is a native of Jeffersonville, Ind. He and his wife, Jacquelyn, live on River Oaks Boulevard, Paducah.

They have two children, James Clay and Joseph.

Griffin came to PGDP in 1975. He previously worked for Martin Machine Works in Fulton, Ky. A native of Union City, Tenn., Griffin has attended Dyersburg State Community College and the University of Tennessee, Martin. He served in the Tennessee National Guard for six years. Griffin and his wife, Marlene, reside on Stevin Drive, Paducah, with their daughter, Gina.

Gourieux is a graduate of Murray State University with a marketing major. He has been with PGDP two years and is a native of Paducah. Before joining the Nuclear Division, Gourieux was a member of the Atlanta Braves professional baseball team and a member of the Association of Professional Baseball Players. He and his wife, Janice, reside on Lutes Road, Paducah, with their son, Derrick.

Timmons is a Paducah native and was previously an operator for South Central Bell. She joined PGDP in 1976. She has attended Murray State University. Linda and her husband, Donnie, live on Blandville Road, Paducah. They have one son, Jason.

## Bond drive

Nuclear Division employees can join the Payroll Savings Plan and buy U.S. Savings Bonds for as little as 50 cents per week or \$2 per month during the annual Nuclear Division Bond Drive, May 8 to June 9.

Savings bonds are a safe investment since their six percent interest rate is guaranteed by the federal government. The interest rates are guaranteed never to go lower than the percentage level at which they were purchased.

Many people invest in U.S. savings bonds to establish a college fund for their children or a retirement plan for themselves. Bonds may also be readily converted into cash at any bank and are exempt from state and local income taxes. In case of loss or theft, they are immediately replaced.

Bob Sherlin, Plant and Equipment Division at ORNL, is the general chairman for the drive. Individual plant chairmen are: Frank Strang, ORGDP; Bill Taylor, PGDP; Larry McLaughlin, Y-12; and Bill Graves, ORNL.

ORO-17-173



VISITING HOURS—The energy conservation houses in Knoxville are now open for visits by the public every Tuesday, Thursday and Saturday from noon to 3 p.m. Located off Alcoa Highway in Knoxville, the houses are part of the Tennessee Energy Conservation in Housing (TECH) project sponsored by the Department of Energy (through ORNL), the Tennessee Valley Authority and the University of Tennessee. Included,

from left, are a "control" house which uses an electric resistance heating system; a house that uses the ORNL-developed Annual Cycle Energy System (ACES); and a solar energy house. Demonstrating their energy conserving ability, the solar and ACES houses used only 5,596 and 5,185 kilowatts, respectively, while the control house used 14,246 kilowatts of electricity this past winter (November 1—April 1).

## recreationotes . . .



**HUSBAND-WIFE DUO**—Ken and Shirley Cook made history recently at the Y-12 Golf Tournament at the Y.M.C.A. course. They were the first husband and wife team to compete in a tournament.

### Y-12 golf. . .

Y-12's greens battle at the Y.M.C.A. Center saw Steve Cameron with a one-over-par 73; followed by J. Vance, 77. John Towle took handicap honors with 81, followed by E. W. Smith with 88.

Gordon Hill carded an 85 for scratch honors in division two, followed by Howard Nobles with 86. Handicap honors were gleaned by W. Wakins, 94; and O. C. Willard with 91.

Division three saw Ernie Choat card 91, while J. Brown took a 94. Handicap laurels went to W. Boles, 97; and Jeff Derwort, 110.

Winners may pick up their bounty in 9711-5, Recreation Office.

### ORGDP golf. . .

Dave Lannom placed low in the ORGDP golf tournament recently staged at Whittle Springs. His 75 was followed by W. J. Moore's 78. Bill Reynolds, Bob Nier and M. B. Dawley finished in the first cards in the first division.

Jim Duff took handicap honors in the first division with a 78. C. Richeson, D. Byrd and Jim Shoemaker all scored 81 and John Davis carded an 82.

Division two went to E. V. Bogle with an 81, followed by C. D. Hawkins with an 84. John Balanetsky scored 84 for handicap honors, and C. H. Peterson tallied an 89 card.

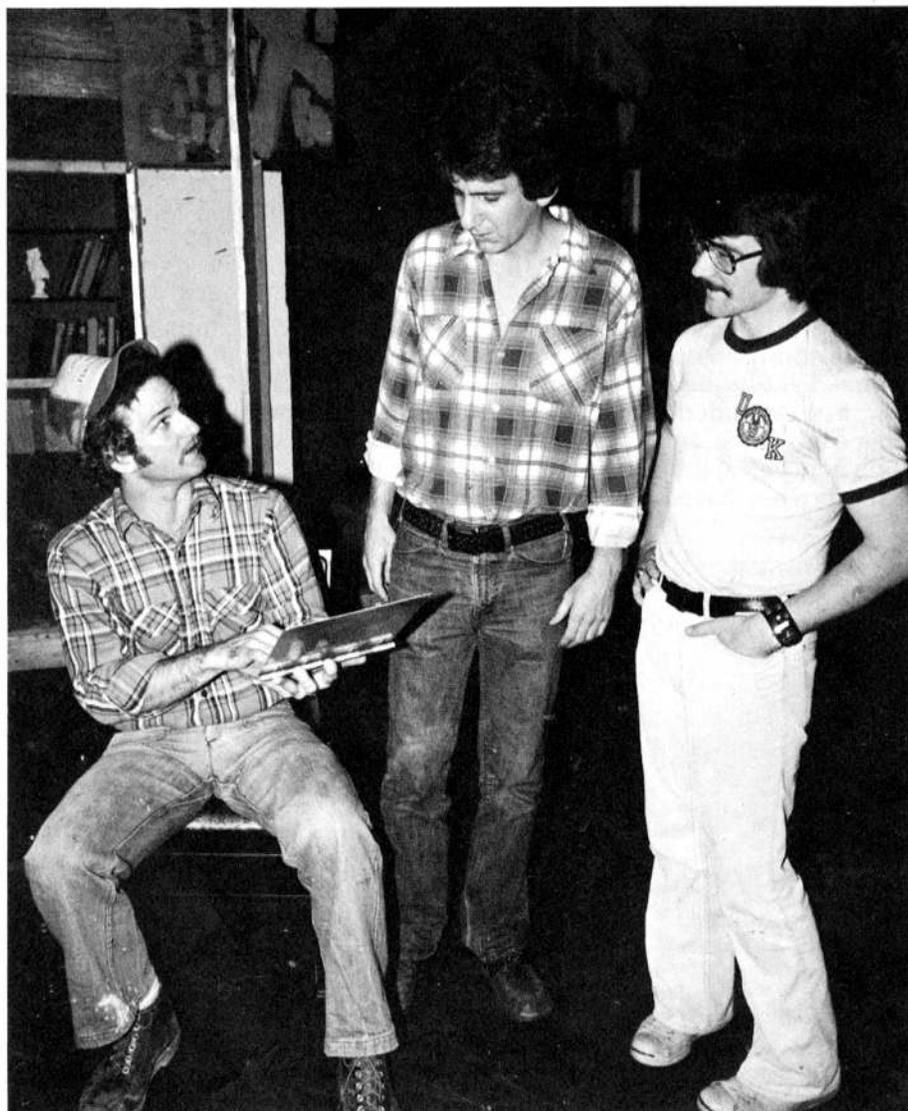
Division three went to Howard Phillips, with 89; followed by John Human, with 91. Handicap lows went to M. G. Miller, 96, and D. L. Weishaar and L. L. Boshears with 103 and 92 each.

Winners may pick up their golf balls in Room C136, Building K-1001.

### Lost bats

A bag of equipment belonging to the Luda Loptas softball team was lost at the lower field of Clark Center Recreation Park. If found, please call Jim Gibson or Sharon Nelson at 3-6565.

**(More recreationotes  
on page 7.)**



**THREE-IN-A-PLAY**—Tom Brazell, left, Paducah Analytical Laboratory, is currently directing the play "Harvey" at the Paducah Market House Theatre. Appearing in the comedy is Dan Underwood, center, Technology Laboratory. Dennis Herricks, right, Plant Engineering, directs the lighting for Mary Chase's comedy which centers around a middle-aged bachelor with his invisible rabbit friend, six foot, one and one-half inches tall.



**MUCH ADO**—Ed Bettis, Bet Giddings, David Hobson and Ernest Silver, from left, are appearing in the Oak Ridge Playhouse's current production of Shakespeare's "Much Ado About Nothing." This is the final production of the current Playhouse's bill and will be presented May 12, 13, 19 and 20 at 8:20 p.m. All four of the actors are in the Nuclear Division.

## Carbide bowling

### ORGDP Women's. . .

The Uptowners continue to hold their lead over the Payoffs in the ORGDP Women's League. Charlene Castle was "Bowler of the Week," rolling a 190-207-218=615 handicap series.

### K-25 Wednesday Men's. . .

Sues Sooners have a commanding lead over the Protectors in the Wednesday Men's League. Chuck McCluskey won the high handicap game prize with a 239. Karl Rapp won the high handicap series prize rolling a 654.

### ORNL Ladies. . .

The Mousechasers won both halves to become the ORNL Ladies League Champions. The Season Awards were as follows:

High game scratch: Elizabeth Phipps  
High game handicap: Pat Mullins  
High series scratch: Georgia Guinn  
High series handicap: Laura Walker  
Team game handicap: HP-Ettes  
Team series handicap: Avengers

### ORNL "A". . .

The roll-off for the ORNL "A" League Champ featured the Dynamics winning. The following are the individual prize winners for the season:

Best won-lost record: Gene Hawkins  
High handicap series: Paul Gnadt  
High handicap game: Niel O. Case  
High scratch average: R. McCulloch  
Most improved bowler: Danny Underwood

### ORNL golf. . .

Wallace Hills was the scene of ORNL's first golf tournament, as Don Collins scored a 74, followed by P. Pair with 78. Handicap lows went to Tom Akin, 74; and J. Rowell Jr., 77.

Division two went to J. Waggoner, 83; and W. Cox, 85. J. Duncan's 84 and H. Wiggins' 86 were handicap lows.

The third division went to J. P. Jackson, 85; and E. Trowbridge, 90. Handicap honors went to M. Shearin, 86; and J. Mullins, 93.

Prizes may be obtained at Room J-108, Building 4500-N.

### Y-12 Classic. . .

The Splinters won the roll-off against the Eightballs to become the Classic League Champions. The Ridgers won the season high team series handicap with 3099. The Smelters won the season high team game handicap with 1104. Bill Ladd won the season award for high individual series scratch with a 676. The other season award went to J. Kendra for high individual scratch game with a 267. Mike Sawicki won the high scratch game and series during the roll-off with a 237/632.

### Y-12 C. . .

The Mini-Strikes won the roll-off on April 24 over the Rounders. Robert Carmack won the season high handicap series with a 716. Dan Shaffer won the season high handicap game with a 271.

### Carbide Family Mixed. . .

The Oops continue to lead the Carbide Family Mixed League. This league is bowling two shifts a night to make up for snow days. John Patton rolled a 600 scratch series in the first set and a 556 in the second for the men. Arnetha Johnson won the first set for the ladies rolling a 563 scratch series. Edith Baxter won high series for the second set with a 531 scratch series.

### Hi power rifle. . .

Jack Huff of Y-12 won the second match of the High Power Rifle League with a 487-11x out of 500. Just barely behind in second place was Jack Spurling of Y-12 with a 487-10x. In third place was Don Kiplinger of ORNL with a 473. Other scores were:

T. N. Burklow (ORNL)—385  
M. A. Barker (ORNL)—357  
A. Quist (Y-12)—468 P. Glover (Y-12)—352  
W. I. Galyon (Y-12)—463  
H. W. Bertini (Y-12)—452  
A. Abbatiello (ORGDP)—443  
L. Weston (ORNL)—441 R. Hicks (ORNL)—338  
G. Newton (FOB)—435-4x  
E. T. Johnson (Y-12)—435-4x  
R. Wiegand (ORGDP)—432  
V. L. Fowler (ORNL)—426 E. Hines (ORNL)—355

# anniversaries...

## ORNL

35 YEARS

4089-77



**Blakely**

J. Paul Blakely, manager, publications and visual arts sections of the ORNL Information Division, joined the Manhattan Project in 1943 as a Tennessee Eastman employee. When Union Carbide Corporation took over the project in 1948, Blakely stayed with the company in the Materials Chemistry Division.

A native of Pennsylvania, Blakely served for eight years in the ORNL Recator Division (now Engineering Technology Division) before joining the Information Division in 1973.

He and his wife, Tinue, live at 9635 Tunbridge Lane in Knoxville. They have a daughter, Carol.

30 YEARS

Billie S. Sams, Plant and Equipment; Eugene H. Bates, Finance and Materials; Allan H. Petree, Engineering; Albert F. Zulliger, Solid State; Elmer L. Glandon, Instrumentation and Controls; and O. Lucille Kuykendall, Finance and Materials.

25 YEARS

James A. Worth, Frank L. Peishel, Boyce M. Boyer, Mary H. Bailey,

Raymond F. Long, William W. Stringer and James H. Denton.

20 YEARS

Charles R. Kennedy, David E. Sheppard, Austin F. Walker, D.C. Robbins and Ordean S. Oen.

## Y-12 PLANT

30 YEARS

Ralph A. Wilson Jr., Fabrication Division; James T. Reel, Process Maintenance; Cleveland O. Mathena, General Can Fabrication Shop; and Pauline S. Goodwin, Production Analysis.

25 YEARS

Virgil T. Callaway, Naomi T. Hart, Edward C. McFaddin, John C. Johnson, Leonard G. Whitten, Thurston L. Boshears, Austin A. Crabtree, Emory E. Denham, Clinton N. Cagle and Gayther C. Cook Jr.

20 YEARS

Kenneth D. Baker and William J. Hulsey.

## ORGDP

30 YEARS

Deforest F. Smith, Gaseous Diffusion Development; Cornelius H. Hilemon, Engineering; Robert E. Harris, Finance and Materials; Gordon E. Fielden, Support Services; and Graham E. Johnson, Inspection Department.

25 YEARS

Howard L. Smith, Charles W. Weber and Billie J. Ellenburg.

## PADUCAH

30 YEARS

Donald E. Gordanier, Analytical Laboratory Department.

25 YEARS

Elbert L. Cherry, Clovis E. Green, Guthrie L. Cecil and L. B. Woods.

## Secretaries meet in Gatlinburg

Officer installations, seminars and treks through the Smoky Mountains and Gatlinburg are the highlights of this year's National Secretaries Association (NSA) Tennessee Division meeting.

"A Multiplicity of Rungs in the Secretarial Ladder: Perception, Professionalism, Performance, Projection" is the theme of the meeting, which will be held May 19-20 at the Riverside Motor Lodge in Gatlinburg.

Featured speakers include: Carolyn Sheddan, Certified Professional Secretary and assistant professor of Office Administration at the University of Tennessee, Knoxville (UTK); Sammie Lynn Puett, executive assistant to the chancellor at UTK; and Herman Postma, director of ORNL.

## patents granted...

To George G. Kelley, ORNL, for "Toroidal Band Limiter for a Plasma Containment Device."

To Ronald L. Beatty, T. B. Lindemer and E. L. Long Jr., all of ORNL, for "Pyrolytic Carbon-Coated Nuclear Fuel."

## Cost engineers organize section

A charter meeting of the East Tennessee Section of the American Association of Cost Engineers (AACE) was held in Knoxville on April 24.

Elected president of the East Tennessee Section was Larry G. Medley of Y-12. Others officers elected were—vice president: Robert E. Pedde, TVA; secretary: Thomas H. Kevil, ORGDP; and treasurer: Morrill D. Marks, Rust Engineering Co.

Directors of the organization are: Kenneth D. Cook and Charlie O. Kirby of Y-12, Jeter E. Wardrep Jr. and Chester Weisbarth of Rust Engineering Co., and Carl Bowman of TVA.

The purpose of the AACE is "The application of scientific principles and techniques to problems of cost estimation, cost control, business planning and management science."

The next business/dinner meeting is scheduled for 6:15 p.m. on May 22, at the Ramada Inn West in Knoxville. Nelson Van Wie of ORGDP will speak on "Estimate Your Crafts While You Estimate Your Costs." All interested persons are invited to attend.



**Cottrell, Wilkes and Talmi**

## IAC elects officers; plans seminars

The Information Analysis Center Forum at ORNL recently installed new officers. Don J. Wilkes, Director of the Energy and Environmental Response Center, was elected president; William B. Cottrell, director of the Nuclear Safety Information Center, will serve as vice-president; and Bonnie C. Talmi, Information Center coordinator, was elected secretary.

In addition to the traditional bi-monthly speeches, plans for the coming years include a series of short tutorial seminars on information-related topics. The series will be open to any interested persons.

The Forum—a voluntary organization composed of participating Information Analysis Center employees—was formed to further the transfer of information at ORNL.

## more recreationotes...

### Engineering picnic set June 3 at park

"Close Encounters of the Carbide Kind" is the theme of this year's Engineering picnic that is scheduled for Saturday, June 3, at Carbide Park.

The activities at will begin at 11 a.m. with dinner being served between 5-6:30 p.m. Adult barbecue dinner tickets cost \$2.50 while children's tickets for a hot dog or hamburger dinner will cost \$1.50. Information on tickets can be obtained from Joyce Irving, extension 3-9433. A number of events are planned for both children and adults. For the children there will be games such as tug-of-wars, balloon relays, three-legged races and kangaroo relays. Some of the attractions include a merry-go-round, puppet show and Lucky Lem.

Arts and crafts featured include wood working, painting, weaving and leather work.

For general entertainment, there will be the Alexander Brothers and Cherie; Alexander Brothers and Bill Capshaw; Mike Garret and Phil Linsey; Dennis Willard and Company; Moonshine Cloggers; Kirk Johnson and chug-a-lug contest.

The athletically inclined will find activities such as basketball, horse shoes, women's volleyball, badminton, hole-in-one, tug-of-war and a softball tournament. Information on the latter should be obtained from Steve Rice, 3-3316.

### Paducah golf...

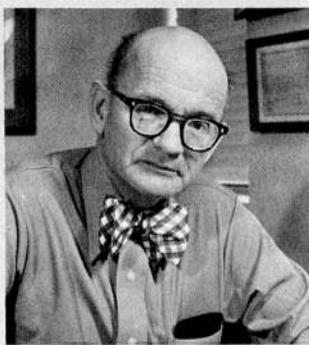
It was a tight round for the 20 teams making up the year's first golf scramble at Paducah's Paxton Park. The foursome who bested the closely-bunched scores was led by Archie Miller Jr. and supported by Forrest Edwards, Bill Longton and Debbie Wells for a winning three under par. Competitors Jerry Neale, Bob Moss, JoAnn Longton and Rumsey Houser shot a second-place win with a two under. Captain Mike Flood, guided his team of C. E. Varble, Norma Smith, Tyrone Sivals and Tommy Pierce to a count back two under for third place winnings.

### Paducah tennis...

Paducah plant tennis fans have hit the courts for the '78 season. Both the men's and ladies' ladders have been established and challenges have begun. The season opened April 17 and will end September 15. Players finishing in the top four places will win prizes. One prize will be given in ladies and doubles divisions. Two tournaments are being planned as well as several matches against other industrial facilities. To be eligible to play in any of these events, you must have played a minimum of two matches prior to July 1 and two matches between July 2 and September 15. Anyone interested in the tennis ladders may contact Dave Taylor at 8309, PAX or 273, BELL.

# New language of stroke prevention

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.)

Each year approximately half a million persons in the United States have a critical episode with cerebrovascular disease. The term most lay people use is a "stroke." It now appears that some strokes can be avoided, not only by preventing underlying causes, but also by instituting secondary prevention when the first warning signs appear. A great interest in this field has resulted in a proliferation of new names and abbreviations.

### Multiple Causes

Roughly 80 percent of strokes are thromboembolic phenomena, during which a portion of the brain is deprived of its blood supply. Fifty-seven percent are due to a localized blood clot (cerebral thrombosis), and 15 percent are due to clots which have traveled to the brain (cerebral emboli) from distant locations. Twelve percent are caused by hemorrhages on the surface of the brain (subarachnoid hemorrhages),

and five percent by hemorrhage into the brain itself.

About six percent are due to transient ischemic attacks (TIA's). These are brief episodes of weakness, paralysis or blindness which clear completely—sometimes in only a matter of minutes. It is these episodes which have recently been attracting a great deal of research interest. They frequently are the first warning signs of an impending major stroke. If a vigorous diagnostic effort could be launched to determine what caused the TIA and preventive treatment started, then maybe the future disastrous stroke could be prevented.

TIA's are episodes of temporary local brain dysfunction caused by impairment of the blood supply. Typically, the symptoms develop rapidly. They progress from the earliest impairment to maximum dysfunction within five minutes and usually within one minute. They usually last from two to fifteen minutes, but occasionally may persist

for as long as 24 hours. After the symptom has disappeared, there is usually no neurologic deficit. When the damage is more severe, it is called a reversible ischemic neurologic deficit (RIND). The latter is only an extension of the TIA.

### Varied symptoms

The nature of the symptom depends on the area of the brain which has been deprived of its blood supply. Commonly it is a one-sided weakness of either all or a portion of the skeletal muscles. It may be a weakness of the muscles in the face, which results in speaking difficulties. It may be a loss of strength in an arm or hand, or the inability to use one leg. Sometimes it may be an intense burning or prickling sensation involving one or both sides of the face or extremities. A feeling as though ants were suddenly crawling over a portion of one's skin is not a rare symptom. Temporary blindness may occur in one or both eyes.

Unfortunately, sometimes the symptoms may be so generalized and associated with a wide variety of other common conditions that they are not recognized. Examples are dizziness, headache, ringing in the ears, "lightheadedness" or mental confusion.

When these episodes occur, a careful medical and neurological examination is essential. A small proportion may be due to reactions to medications, disturbances in the rhythm of the heart and other medical conditions. Most are believed to be due to tiny emboli (mobile clots) or pieces of atherosclerotic plaques (the hard spots on hardened arteries) which have broken loose and traveled to the brain and plugged a small artery.

### Mobile clots

These emboli actually have been seen traveling through the arteries on the surface of the retina of the eye. They have been found to be

microscopic aggregates of fibrin platelets and fat.

By far the most common underlying cause of these emboli is atherosclerosis, which may be brought on by high blood pressure. When fat has permeated the walls of the arteries, superficial ulcerations may occur.

Platelets—the tiny cells which are necessary to get a blood clot started—flow on the outside of the stream of blood in an artery. The red and white blood cells tend to be in the center of the stream. When platelets come in contact with an "injured" or "diseased" arterial surface, they respond by changing their shapes and adhering to each other—or to the changed lining surface—and then secreting a variety of chemical materials. These materials, in turn, may change blood flow patterns by becoming physical aggregates, by releasing chemicals which cause spasm or by promoting the formation of fibrin, and thereby, clots.

### 'Blood thinners'

Antiplatelet agents (APA's) are drugs which impair some or all of the platelet functions. Several studies have shown that people who have transient ischemic attacks have abnormal platelets. For unknown reasons, they have enhanced reactivity, meaning they release chemicals which cause platelet and fibrin aggregates.

The APA's of greatest promise are aspirin, indimethacin (Indocin), sulfinpyrazone (Anturane) and dipyridamole (Persantine). A large Canadian study showed that aspirin taken twice a day after a TIA appeared to offer protection from recurrences. Other studies have not been as impressive. Much work needs to be done. Nevertheless, a reduction in the frequency of eventual strokes in persons who have had one or more TIA's seems now to be a promising possibility.

1960-78



UNIVERSITY COOPERATION—S. E. "Wes" Shumate II, left, a group leader in ORNL's Chemical Technology Division, is shown with University of Tennessee junior co-op student, Tim Scott, and a project exhibit which placed in the finals of UT's recent Engineers' Day exhibit competition. Shumate acted as special advisor to UT's student chapter of the American Institute of Chemical Engineers, who built the lab-scale model of a tapered fluidized bed bioreactor denitrification process. This process was developed by the Chemical Technology Division. Scott is the son of Charles D. Scott, associate director of the division.



**UNION CARBIDE CORPORATION**  
NUCLEAR DIVISION  
P. O. BOX Y, OAK RIDGE, TENNESSEE 37830  
ADDRESS CORRECTION REQUESTED

BULK RATE  
U.S. Postage  
**PAID**  
Union Carbide  
Corporation



Remember Me on My Day