

Nuclear Division News



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

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Highly reflective mirrors fabricated in Y-12

173845

The corporate world of Union Carbide

Two new low-density polyethylene reactors, with a combined capacity of more than 400 million pounds a year, are now operating at Union Carbide's Seadrift, Tex., plant. Completion of the multimillion-dollar Seadrift expansion project raises Union Carbide's total low-density polyethylene capacity of 1.5 billion pounds per year in the United States and Puerto Rico.

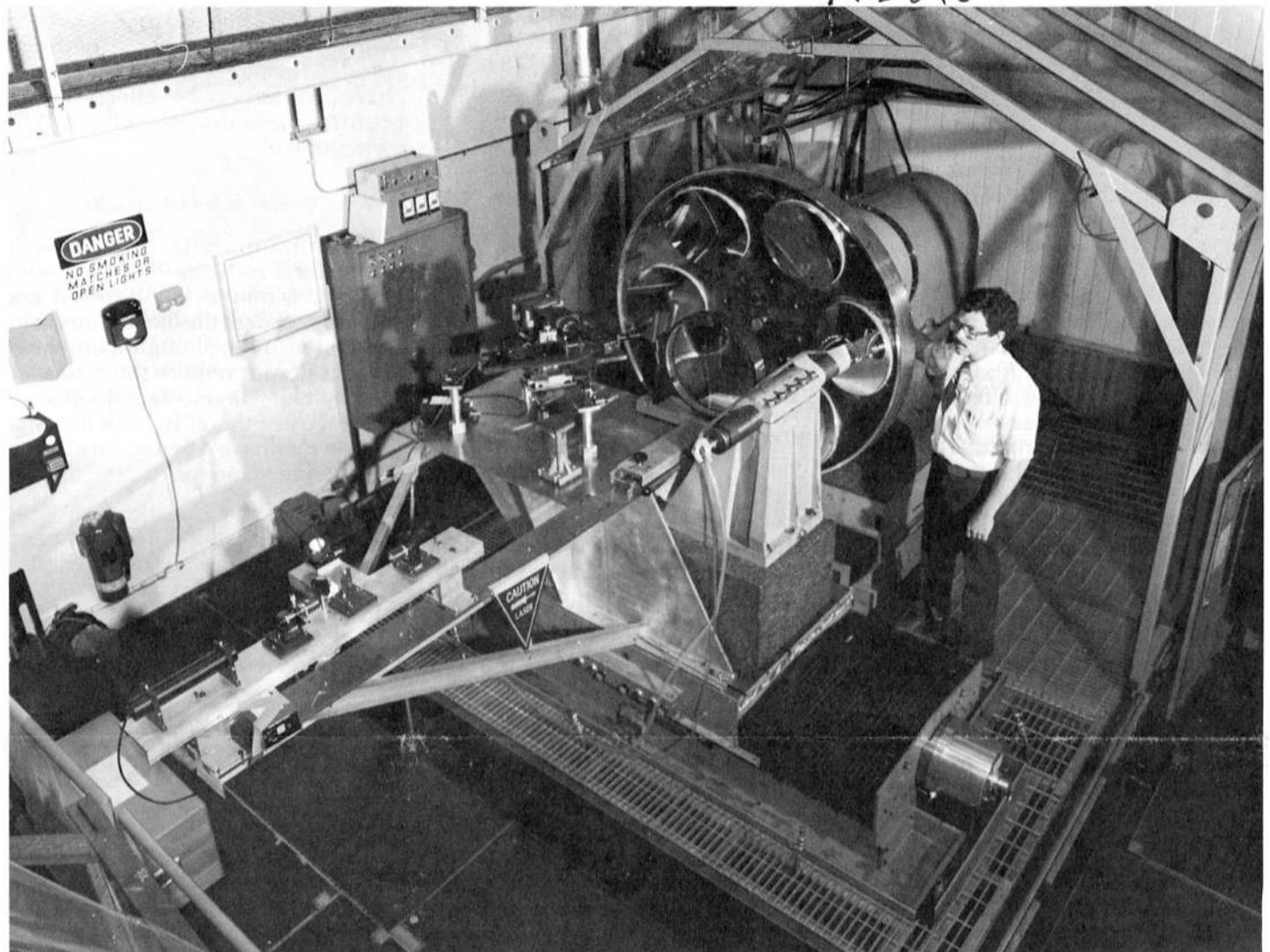
★★★★

An expansion program that will eventually more than double the capacity for production of Cellosize hydroxyethyl cellulose at Union Carbide's plant in Antwerp, Belgium has been announced. The first phase of the expansion is already under way, involving a 20 percent increase in production to 9 million pounds by the end of this year. The total expansion, set for 1980, will provide a capacity of approximately 20 million pounds annually. These products are high-performance thickening agents used to modify the properties of a wide variety of water-based chemical formulations. One of their most important uses is in the coatings industry as thickeners for latex paints and in latex manufacture. They also have applications in a number of other industries including construction, ceramic, leather, paper, agriculture, oil drilling, pharmaceuticals, cosmetics and textiles.

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An advanced system for diagnosing brain diseases has been developed by Union Carbide. The new scanning system, trademarked UNIRET-1, is another development in the corporation's expanding health care business. It was unveiled recently in Chicago at the Society of Nuclear Medicine's annual meeting.

(Please see page 8)



PRECISION MIRRORS—Sam Robinson, Y-12 development engineer, observes the optical inspection equipment and precision cutting machine used to cut and inspect the precision parabolic mirrors. Six mirrors were cut at one time to tolerances better than 75 microinches. The mirrors are for use in the laser fusion development program at Los Alamos Scientific Laboratory.

The Y-12 Plant is making approximately 50 highly reflective metal mirrors for use in the nation's controlled fusion energy development program.

The Y-12 Plant was selected to perform the work because of its unique capabilities in precision machining.

The mirrors are being made for Los Alamos Scientific Laboratory, which will use them in two experimental

devices designed to bring about a controlled fusion reaction. Each device uses multiple laser beams to strike tiny fuel pellets of deuterium. The mirrors are designed to turn and focus the separate beams onto the fuel pellets.

Three different types of mirrors are being fabricated—16-inch-diameter mirrors with a spherical reflecting surface, 16" x 23" ovals with a flat reflecting surface, and 16-inch-diameter segments of a 60-inch parabolic (shallow bowl-shaped) reflecting surface. Accuracies of the reflecting surfaces range from 25 to 75 microinches (a microinch is one-millionth of an inch), which is over 100 times more precise than normal industrial machining capability. The mirrors have a reflectivity of better than 99 percent, certified by carbon dioxide laser.

The mirrors are made of aluminum with a copper electroplate on the surface. The mirror surfaces are finished on computer/numerically controlled machines equipped with air-bearing spindles, gem-stone quality diamond cutting tools and a unique part support system to lessen vibration and distortion.

Enrichment fees exceed \$95 million

More than \$95 million in toll enrichment sales were reported at the Oak Ridge Gaseous Diffusion Plant during the second quarter of 1977, bringing the total sales for the year to approximately \$154 million. This compares to \$120 million in sales reported during the first half of 1976.

During the second quarter of 1977, more than 767,000 pounds of enriched uranium were shipped for use in nuclear reactors in France, Japan, Sweden and West Germany, and in the states of Georgia, Maryland, Michigan, Minnesota, New York and South Carolina.

Under the Toll Enrichment Program, privately licensed owners bring their uranium to a gaseous diffusion plant for enriching on a toll basis. Customers are charged for the services required to separate from natural uranium the desired percentage of the uranium-235 isotope, usually between 2 and 3 percent.

More than 140 million aspirin tablets are consumed daily in the USA alone. Dr. Lincoln discusses "Amazing aspirin" on page 2.

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Amazing aspirin

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.)

Any drug which is consumed at a rate of more than 140 million tablets a day in the USA alone can hardly be considered "threatened." Still, aspirin substitutes have been taking an increasing share of the huge over-the-counter analgesic market. A few people might wonder if aspirin with all its hazardous side effects might eventually be replaced. . . No way! On the contrary, aspirin has recently been found to do things nobody dreamed of 10 years ago. It or its derivatives have a more secure future now than ever before.

Introduced in 1899

Willow bark contains a bitter glycoside called salicin, which was discovered in 1827. Sodium salicylate, derived from salicin, was first used to bring down fevers and relieve the painful and swollen joints of rheumatic fever in 1875 and 1876. Aspirin (acetyl salicylic acid) was introduced as a medicine in 1899.

Its use to relieve ordinary headaches, for the pain and swelling due to rheumatism and arthritis, and for miscellaneous causes of pain grew rapidly. It is now effectively hawked by advertisers as the panacea for common discomforts, fever and pain.

One hundred thousand tons are consumed worldwide each year.

One of its most exciting possible new uses is for the prevention or treatment of thromboembolic diseases, including strokes and heart attacks. Clots (thrombi) form in arteries and veins and either obstruct the blood vessel where they are formed or break off forming emboli which are carried to a distant artery or vein, and in turn block the flow of blood.

The mechanism for the formation of clots is different in arteries than in veins. In veins, clotting typically occurs near valves in the large veins where stagnant pools of blood often occur. In arteries, clotting is caused by the deposit of millions of platelets from the blood onto the lining of the vessel.

The normal artery lining is smooth and platelets will not adhere. When the lining is diseased, for example, with atherosclerosis or "hardening of the arteries", the surface becomes broken or roughened and platelet adhesion occurs. A tiny hemorrhage into an atherosclerotic plaque causes it to raise up or "blister". (Think of it like the peeling of a piece of rust off the surface of the inside of a pipe.)

The raw area formed is then the site for the deposit of the platelets.

After adhesion of the platelets, a biochemical sequence is started which causes the release of adenosine diphosphate, which further stimulates platelet aggregation and clot formation. Recent studies suggest that prostaglandins play a crucial role in adherence, release and aggregation of platelets. These prostaglandins are biochemical substances which are present in many tissues and are released in response to a wide variety of stimuli. Injury, inflammation, stress and disease cause the release of these remarkable substances. Therefore, drugs which inhibit their release can have an important effect on the control of disease effects and symptoms.

Prevents heart attack?

Aspirin inhibits prostaglandin formation and the basic clotting process within a blood vessel and thereby reduces the likelihood of clot formation. Even though many heart attacks do not require the formation of any clot—the so-called coronary thrombosis—there is evidence that aspirin may have a beneficial effect in preventing some heart attacks.

In the Boston Collaborative Drug Surveillance Program, 14,674 patients were studied. Seven hundred and seventy-six had a discharge diagnosis of acute myocardial infarction (heart attack where muscle has been permanently damaged). The investigators found that heart attack victims were significantly less likely to have been regular aspirin users than those in the control group.

In a recent prospective study in Wales, 1,239 men who had recovered from a heart attack were given randomly either a placebo (a like-appearing but totally inactive substitute) or one aspirin tablet per day. After 12 months, there was a 25 percent reduction of the total mortality rate in those who took aspirin. Because of the short time and

the small number of subsequent attacks, the results were not statistically conclusive; but these studies, plus the experimental evidence, strongly suggest that aspirin may eventually play an important role in preventing heart attacks.

Stroke prevention?

Aspirin likewise is being studied in an effort to see if it will prevent strokes caused by blood clots (cerebral thromboses). Favorable effects have been seen in patients who are subject to small strokes. Aspirin, unfortunately, is not as effective as anticoagulants in the prevention of clots which form in veins; therefore, its use in the treatment of thrombophlebitis ("milk leg") is not as valuable as anticoagulants.

Prostaglandins play a major role in the pain, swelling, redness and increased heat caused by rheumatoid arthritis and other causes of inflammation. Aspirin helps to prevent the biosynthesis of prostaglandins, thereby having a beneficial effect on the underlying mechanism of the disease. It is clear that aspirin does far more than just control pain.

Aspirin has many side effects which have to be controlled. It causes gastro-intestinal bleeding and irritation, and some people are allergic to it. It can damage the kidneys and affect the hearing when taken in large doses over a prolonged period. In the next few years, much more precise information should be available on how much, when, how long, and in what form it should be taken to prevent or to treat a wide range of clinical illnesses.

Although the advertisers "push" aspirin for too many minor infirmities and probably much too much is presently used, aspirin is an important and basic drug for the practice of medicine. As basic mechanisms are better understood, aspirin or its derivatives will probably play an ever expanding and more explicit role in the practice of medicine.



CAMPAIGN WORKERS— ORGDP's 1977 United Way campaign staff met recently with this year's divisional representatives to formulate plans for the drive this fall. From left are: Karren B. Cochran, assistant to the chairman; Gary G. Hilton, materials manager; Betty W. Powell; W. Eugene Rooks, publicity chairman; Mae M. Ely; C. Allen McAmis, treasurer; J. F. Felte; Robert S. Eby; L. B. Packer; Fay B. Duncan; Michael C. Willard, solicitor instructor; Mary Bell (substituting for Mary L. Bailey); Bill Harper (substituting for Ronald M. Keyser); H. G. Stanley; K. A. Rick; E. L. Garland (substituting for B. H. Bramblett); J. Pat Reavis; Bea W. James; Hugh C. Webb; Carol W. Kendrick; Gary A. Riser, chairman; Harry J. Brown, advisor to the general committee; James R. Lane, associate chairman; Robert J. Rodriguez; and I. B. Pedersen (substituting for Harry M. Sartelle). Not present for the photo were campaign staff members O. Lynn Calvert, co-chairman, and Allen E. Williams, assistant treasurer; and divisional representatives Robert C. DeBinder, Marsha G. Morgan, Sue B. Kelly and Nina J. Crowe.

patents . . .

To Peter L. Walstrom and James F. Ellis, ORNL, for "Nonferromagnetic Linear Variable Differential Transformer."

To Verne B. Gritzner and Donald W. Hackett, both of the Y-12 Plant, for "Mold with Improved Core for Metal Casting Operation."

To Philip A. Jallouk, ORNL, for "Flow Directing Means for Air-Cooled Transformers."

wanted



ORNL

JOIN CAR POOL from Gleason Road, West Knoxville area to East Portal, straight days. David Kaserman, plant phone 3-6107, home phone 693-2326.

Excludable sick-pay change made by IRS

When it was signed last year, the Tax Reform Law included a provision which resulted in the removal of the excludable sick-pay provision from the calculation of each employee's income taxes. This change was made effective retroactive to January 1, 1976.

As a result of the large number of complaints which were received, Congress changed the effective date of the provision after the 1976 tax

return had been filed. The effective date was moved to January 1, 1977.

Those employees who qualify for the sick-pay exclusion under this change and who need a statement of sick-pay earnings, should make a request to the Benefit Plans office. The figures will be obtained from 1976 payroll records and returned with a copy of Form 2440 for the employee's use in filing an amended 1976 tax return on Form 1040X.

Division safety performance earns high honors



DISTINGUISHED SAFETY PERFORMANCES—Plaudits went to the Nuclear Division's three Oak Ridge installations recently as Warren M. Anderson, President of Union Carbide, visited to recognize 1976 performances. The Distinguished Safety Performance is the corporation's highest honor for safe operations. From left are Herman Postma, director of Oak Ridge National Laboratory; Anderson; Robert A. Winkel, manager of Oak Ridge Gaseous Diffusion Plant; and Jack M. Case, manager of the Y-12 Plant.



PRODUCT CERTIFICATION RECOGNIZED—Y-12's Product Certification was recognized recently for a 15-year period without a lost-time accident, a total of more than 13,000,000 man-hours. Standing from left are Jack Yaggi, Paul Vanstrum and Bill Wilcox (presenting Division Superintendent Ken Bernander with a special plaque), Clarence Johnson and James White. Seated are Ron Benvegna, Robert Rose, Joel Thomason, Al Stephens, Herm Snyder, Ward Wampler, Homer Moss and V. C. Jackson.



SAFETY COUNCIL RECOGNITION—Vincent L. Tofany, second from left, president of the National Safety Council, recently awarded Nuclear Division installations NSC plaques. ORNL, Y-12 and ORGDP were given the NSC's Award of Honor and the PGDP took the Award of Merit. From left are Postma, Tofany, Winkel; J. Robert Merriman, Engineering and Technical Services manager at Paducah; and Case.

Y-12 Product Certification honored for long safety record

An accident-free work program is no accident! It springs from the individual effort and frame of mind of every employee in his day-to-day functions.

While honors were heaped upon the entire Nuclear Division recently by Union Carbide Corporation, the National Safety Council and ERDA, one has to get down to the individual level to find the reasons for these excellent performance records.

Take Y-12's Product Certification Division. A special award for Distinguished Safety Performance was presented the Division recently, for a 15-year period, from December 28, 1961 to February 6, 1977, without a lost-time injury, resulting in an accumulation of 13,746,487 employee hours. All this was done in a variety of work complexes with injury potentials equal to other Divisions within the Y-12 Plant.

In recognition of the Division's diligent adherence to safety standards, Nuclear Division officials, Paul R. Vanstrum, Vice President; William J. Wilcox, Jr., Technical Director; James C. White, Technical Services Manager and Y-12 Plant officials, William J. Yaggi, General Plant Services Manager; Herman G. P. Snyder, Employee Relations Superintendent; and Clarence E. Johnson, Safety Director, gathered with Ken Bernander, Product Certification Division Director, and his department heads for the presentation of the special plaque.

Vanstrum complimented the Division for the individual efforts which made the award possible and pointed out that data on the Division's off-the-job safety efforts had reached corporate attention. He pointed out that off-the-job safety

probably presented the most potential for improvement both in the Division and the Corporation.

Wilcox also praised the Division, its supervision and the individual efforts of every employee which resulted in the 15-year safe work record. Real savings in pain, lost time, and expense both inside and outside the Plant have resulted from safety awareness instilled by the Division's programs. He also added that a safe working environment and individual safety consciousness is of much more value than any record.

Among department heads present for the honors were V. C. Jackson, Physical Testing Operations; Al Stephens and Joel C. Thomason (for Otto Briscoe), Laboratory Operations; Robert P. Rose, Dimensional Inspection; and Ward E. Wampler Jr., safety coordinator for the Division. Also attending the recognition meeting were Homer G. Moss and Ron W. Benvegna, Y-12 Safety Department. Department heads not able to attend the meeting were James C. Thompson Jr. and A. E. "Gus" Perry.

Individual personal efforts, everyone agreed, are the by-products of interest by supervision, support from top management, and a safety awareness instilled by a vigorous well-planned program. It is the effort of each employee that ultimately accounts for any safety record—in Product Certification, in Y-12, or the entire Nuclear Division.

STORM HAVEN—A car can be safety haven. . . It's the safest place to be if you're caught out in an electrical storm.

New waste management head

The appointment of Raymond E. Blanco as manager of nuclear waste management research and development at ORNL has been announced by Herman Postma, director of the Laboratory.

Blanco will coordinate research and development programs in waste management and serve as the principal contact between these programs and ERDA.

He will report to Don E. Ferguson, director of the Chemical Technology Division. Edward J. Frederick will replace Blanco as manager of support programs carried out by the Chemical Technology Division for the Nuclear Regulatory Commission.

A native of Fargo, N. D., Blanco received his B.S. degree in chemical technology from North Dakota State University, and has done postgraduate work at Brooklyn Polytechnic Institute and the University of Tennessee.

He has been associated with U.S. atomic energy programs in Oak Ridge since 1944, when he began working with the chemical process development department in the Y-12 Plant as a member of the Army Special Engineering Detachment. With ORNL since 1946, he has worked in the areas of nuclear fuel reprocessing and waste management, including radiochemical separations, ion exchange, and solvent extraction technology. He became a section chief in the Chemical Technology Division in 1962, and manager of Regulatory Programs for the Division in 1973. Blanco also was a member of the U. S. team that surveyed waste management in the Soviet Union.

Blanco and his wife, Elaine, have two sons, Jim and Dale. The Blancos make their home on Olney Lane in Oak Ridge.



Blanco

23 in '77 Carnegie Program

Twenty-one students and two faculty members from 16 colleges and universities are participating in a 10-week summer training program at the University of Tennessee-Oak Ridge Graduate School of Biomedical Sciences, under a program supported by a grant from the Carnegie Corporation of New York.

The Biomedical School, which is part of the University of Tennessee, is operated as a part of the ORNL Biology Division.

The Carnegie Summer Program, which began in 1972 with a \$232,000 grant, provides to a selected number of black undergraduate students exposure to a wide range of biomedical research in an effort to encourage their entry into the biomedical field. It also affords faculty members of predominantly black colleges and universities an opportunity to conduct research projects at ORNL to expand their professional expertise.

Eighteen of the students and the two faculty members are working in the Biology Division; three students are working in the Environmental Sciences Division.

A typical day for a student consists of about one and one-half hours of classroom study and seven hours of research work, performed under the supervision of professional staff members. Students also have an opportunity to hear several outside guest lecturers during the program.

The Carnegie Summer Program is directed by Franklin D. Hamilton, associate professor of biomedical sciences at the University of Tennessee and consultant to the Biology Division.

Students participating in this summer's Carnegie Program are:

Eugene O. Bailey and L'Tanya J. Bailey, Winston-Salem State University; Larry V. Blount, University of Maryland at Baltimore; Melvin D. Burton, Tougaloo College; Alvin Chapman, Albany State College; Sandra M. Curtis, Knoxville College; Vijira L. DeSilva, Bennett College;

Henry M. Francis, University of D.C.; Sharon Hawkins, Knoxville College; Darryl B. Jenkins, Livingstone College; Karen E. Johnson, Xavier University; Robin D. Jones, Douglass College; James E. Newby, Hampton Institute; Hal P. Purnell, Jackson State University;

Eric S. Quivers, Morehouse College; Sharron Richardson, Florida A&M University; Charles L. Rodgers, Tougaloo College; Donna M. Thompson, Howard University; Beverley A. Townsend, Jackson State University; and Eugenia M. Williams, Rust College.

Visiting faculty members participating in the program are Bharati I. Mehrotra, Tougaloo College; and Lynette Padmore, Florida A&M University.

Used vehicles, office equipment in bid sale

A "spot bid" sale is in progress, featuring used government-owned vehicles and office equipment. Inspection of the materials may be made from 8:10 a.m. until 4 p.m. through August 9, excluding Sundays. The articles may be seen at the ORGDP Powerhouse Area, Building K-722, located off State Route 58.

The sale will begin at 9 a.m. Wednesday, August 10. Additional information may be obtained from D. R. McCammon, extension 3-4601.



SUMMER RESEARCHER—Sharon Hawkins, a pre-medicine major at Knoxville College, is one of 21 undergraduate students participating in the Carnegie Summer Program in the University of Tennessee—Oak Ridge Graduate School of Biomedical Sciences. Hawkins, working on a summer project on stomata resistance in plants, is conducting her research in the Environmental Sciences Division.

wanted...

ORGDP

JOIN CAR POOL from West Hills area, Knoxville to Portal 4, 7:30 or 8 to 4, Tuesday through Saturday. W. W. Beason, plant extension 3-3476, home Knoxville 693-2431.

RIDE from East Village, Oak Ridge, to Portal 4, straight day. Marvin Kerley, plant phone 3-3034, home phone Oak Ridge 483-6983.

ORNL

RIDE wanted from Claxton area to East Portal, 8-4:30 shift, straight days.

Betty Queen, plant phone 3-6265, home phone 945-2992.

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

RIDERS wanted from Westhaven, Cherry Hill Park, Cumberland Estates, Oak Ridge Highway areas to East or West Portals, 8-4:30. O. W. Burke, plant extension 3-1260, home phone 523-1065.

Employees get certificates for in-house course work

"Diplomas" were awarded recently to ORNL employees who completed courses in the Administrative and Technical Support In-House Development Opportunities Program, 1976-77.

Open to all weekly and salaried employees, the program includes more than 20 courses in the areas of clerical, technical and communications skills. Paula Gillespie coordinates the program for the Personnel Development and Systems Department, Employee Relations Division. Course work gets under way each fall, following the mailing of descriptive brochures to employees.

The following is a list of employees who participated in 1976-77 In-House Development courses:

<p>Human Relations Paula Gillespie, instructor</p> <p>Juanita Ball Linda Bayless Doris Brooks Nancy Dailey Bob Durall Tim Ensminger Jean Fraley Jan Gentry Lou Gunnels Eugene Lawrence</p>	<p>Basic Computer Concepts C. W. Neston, instructor</p> <p>Nancy Dailey Bernice Fitzgerald Virginia Lennon Richard Mathis</p>	<p>Introduction to I.B.M. System 360 C. W. Neston, instructor</p> <p>Bernice Fitzgerald Pat Keeble</p>	<p>Algebra I Dennis Strickler, instructor</p> <p>Richard Mathis</p>	<p>Grammar LaRue Foster, instructor</p> <p>Rebecca Hamley Karen Keylon Glyn E. Moore</p>	<p>Effective Letter Writing Anita Gill, instructor</p> <p>Georgia Bowers Joanne Sanford</p>	<p>Engineering Materials James Selle, instructor</p> <p>Wil Allin Ron Baldwin Lewis Edgel Charlie Fowler</p>	<p>Blueprint Reading James Moore, instructor</p> <p>Edwin Benton C. J. Brown Bernice Fitzgerald George Kelly Ford Marilyn Hendricks</p>	<p>Dictation & Transcription Anita Barker, instructor</p> <p>Regina Collins Jill Smith</p>	<p>Reading Paula Gillespie, instructor</p> <p>Karolyn Barnes Billie Ferguson Linda Bayless Sam Laugherty Walter McClanahan</p>	<p>Vocabulary Barbara Lyon, instructor</p> <p>Doris Brooks Ophylene Cantrill Nancy Dailey Nell Jones Angelyn Puckett</p>	<p>Shorthand I Ada Misek, instructor</p> <p>Candice Fraker Shirley Lawson Kaye Moore</p>	<p>Shorthand II Ada Misek, instructor</p> <p>Wilma Barnard Linda Bayless</p>	<p>Nuclear Division Review of Office Guide Barbara White, instructor</p> <p>Margie Adair Mary Ann Barnett Alice Brewer Bertie Byrum Linda Caldwell Margaret Castleberry Holly Davis Joe Marie Davis Mary Davis Dolores Sunn Jewell Ellis Christine Flanary Marion Hall Peggy Harris Marion Hoy Helen Keener Karen Keylon Rebecca Lawson Shirley Lawson Gail Lemons Gloria Long</p>	<p>S. I. Metrics Nelson Wilkins, instructor</p> <p>George Archer Carol Brumley Geneva Lee Marvin Payne Paula Renfro</p>	<p>Records Management Jim Huffman, instructor</p> <p>Lois Bradley Sharon Fuller Janet Gentry Sue McDaniel Milton Meacham</p>	<p>Chemistry John Caton, instructor</p> <p>Robert Laxson Kaye Russell</p>	<p>Bernice Massengill Mary Melhorn Davie Patterson Bulanda Presley Cheryl Phillips Rita Schubert Carolyn Seaborn Dramia Smith Shirley Spence Sally Stockstill Vickie Strevell Jan Thomas Janet Thomas Charlotte Weaver Jean White Susan Williams Janice Arwood Kathryn Witherspoon Vicki Wright Vivian Zedler</p>
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Jared named to aid utilization program

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Jared

Donald W. Jared has been appointed technology utilization and commercialization officer at ORNL.

His office serves as the principal contact at ORNL for public and private organizations interested in the application of government-sponsored science and technology to their own commercial or research ventures.

In his new assignment, Jared succeeds Carol J. Oen, who has taken a year's leave of absence. With ORNL since 1965, he has been a member of the developmental biology group in the Biology Division.

He received his B.S. degree in biology from Middle Tennessee State University and is working on an M.B.A. at the University of Tennessee. He is a member of Sigma Xi honorary science fraternity.

Jared and his wife, Dee, live at 107 Fulton Lane, Oak Ridge.

Firewood cutting

The next public firewood cutting on the Oak Ridge reservation is scheduled for August 12 and 13.

Although it rained when the last cutting was held (June 17, 18), more than 100 local citizens worked diligently to collect firewood for the coming winter.

Those interested in participating should meet Friday or Saturday in the parking lot on Bethel Valley Road east of, the main entrance to ORNL. Groups will be accompanied to the cutting areas by members of the Forest Management Program staff.

Each family or individual must purchase a permit in order to participate in the cutting. The permit fee of \$5 per day will be used to defray costs of personnel needed to monitor the activity.

Cutters must bring their own equipment. Road access will be provided for private vehicles to remove firewood from the reservation after it has been cut.

Participants may cut only those trees designated in the areas assigned by the staff. Persons who do not observe this restriction will have their permits revoked and will be asked to leave the cutting area.

Dennis Bradburn, ORNL Environmental Sciences Division, will supervise the activity. For additional information, contact Bradburn at extension 3-1266.



TAXI—You don't have to hail one at the Paducah plant, you just pick up the telephone. Linda Givens, the plant's taxi driver, says business has picked up considerably during the recent heat wave. Like her counterparts in the outside world, Givens' business picks up during inclement weather.

Want a cab at Paducah plant? Just call 'Y-99' on walkie-talkie

The handle "Y-99" doesn't belong to a spy in a James Bond movie, it's Linda Givens' walkie-talkie code number at the Paducah Plant.

After acknowledging the call for "Y-99" Givens starts her motor to begin another day of shuttling Paducah Gaseous Diffusion folks to and from points located in the vast plant site.

She has been the Plant's sole driver for a taxi service for two and one-half years, and averages about 100 miles a day.

"The most interesting part of my job is getting to know so many people," Givens says. She transports an average of 125 riders a day, which

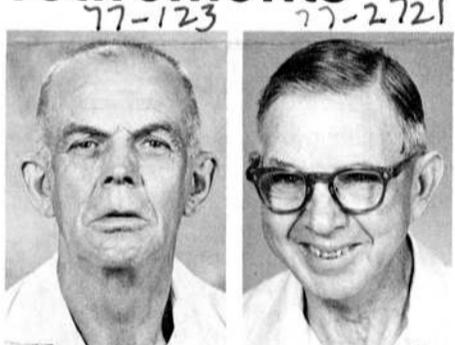
keeps her on the road continuously. "Usually, I'm needed where I've just been," she added.

Logging an estimated 65,000 miles, Givens has a perfect driving record . . . not even a fender-bender to her credit.

Givens has come to know her passengers so well she often recognizes the voice immediately and knows the destination before it is ever given.

And her "fares" know her well, too. After meeting a fellow Paducah employee in a supermarket one day, she was taken aback with his introduction of her to his wife. "Oh, yes, this is Y-99," he grinned.

retirements



Sam N. Tadlock
Process Maintenance
Y-12
29 years service

Donal Jones
ORGDP Maintenance
33 years service



Harry M. Montgomery
Process Maintenance
Y-12
33 years service

Deborah W. Kiviniemi
Y-12 Laboratory
32 years service



Loyde E. Cantrell
Y-12 General Shops
22 years service

Herbert L. Huff
Y-12 Research Services
21 years service



Truman H. Coulter
Casting Department
Y-12
26 years service

Robert G. Shupe
ORGDP Maintenance
32 years service



Blaine Ward
Plant and Equipment
ORNL
30 years service

Fred C. Hutton
Computer Sciences
ORGDP
26 years service

Casimer J. Borkowski
Instrumentation and Controls
ORNL
33 years service

anniversaries

Y-12 PLANT

30 YEARS

Wallace Humphrey, Process Maintenance; and Alma D. Condrey, Development Division.

25 YEARS

Robert P. George, Johnnie J. Lynn, James L. Irons, William J. Hatcher, Lonnie Wright, John M. Mills Jr., William T. Mee, Alvin C. Smith, Georgia A. Gregory, D. C. Morrison, Thomas H. Ebert, Giles C. Gregory and William E. Weaver.

20 YEARS

Paul W. Pless Jr., Robert M. Addington, Reece B. Duggar and James L. Disney.

ORNL

25 YEARS

Edward C. Brantley, Mearl W. Smith, Norman G. Allmon, William C. Fair, Glenn E. Mills and Charles A. Lewis.

20 YEARS

Delbert R. Arwood and D. M. Smith.

ORGDP

30 YEARS

Karl E. Rapp Jr., Materials and Systems Development; George K. Werner, Thermal Systems Development; Ralph R. Wright, Chemical Analysis Department; Billy I. Wyatt, Computer Sciences Division; and Robert J. Barnard, Computer Sciences Division.

25 YEARS

John H. Lawhorn, William B. Luzader, Samuel A. Thompson Jr., Charles A. McNeill and Millard D. Manry.

20 YEARS

Bobby W. Godfrey and John R. Neal.

PADUCAH

25 YEARS

Alvin A. Plewke, Mary L. Gholson, Paul E. Park, Joe A. Ross, James K. Williams, Charles H. Mason III and James S. McKinney.

recreationotes

ORNL fishing rodeo. . .

ORNL fishermen may pick up their awards in Building 2518, Room 113, for catches registered in the first half of 1977.

Winners were:

LARGEMOUTH BASS	
T. R. Bowling	8 lbs.
Nelda Blevins (Mrs. J. E.)	5 lbs. 8.2 ozs.
Gregory Jones (son of R.H.)	5 lbs. 4 ozs.

SMALLMOUTH BASS	
G. W. Jones	4 lbs. 10 ozs.
W. H. Montgomery	4 lbs. 4 ozs.
G. W. Jones (son)	4 lbs. 1 oz.

STRIPED BASS	
Ray Shouster (son of R. G.)	3 lbs. 1 oz.
Micheline Jones (Mrs. R. H.)	2 lbs. 8 oz.
R. H. Jones	2 lbs. 8 ozs.

BREAM, BLUEGILL	
Georgette Shouster (Mrs. R. G.)	1 lb. 2 ozs.
Scotty Lee (son of H. E.)	1 lb. 1 oz.
C. A. Stanley	14 oz.

CRAPPIE	
R. G. Shouster	2 lbs. 4 ozs.
S. S. Hurt	1 lb. 9 ozs.
M. B. Brewer	1 lb. 8 ozs.

HYBRID/ROCK	
B. M. Beeler	25 lbs. 3 ozs.
A. Beets	22 lbs. 8 ozs.
B. A. Thiele	21 lbs.

ROUGH FISH	
J. P. Heiskell	16 lbs. 4 ozs.
A. D. Ryon	15 lbs. 12 ozs.
R. R. Spencer	15 lbs.

SAUGER	
D. Collins	2 lbs. 1 oz.
E. H. Thompson	2 lbs.
V. R. Bolden	1 lb. 10 ozs.

TROUT	
D. Cottrell	2 lbs. 1 oz.
J. N. Smith	1 lb. 7 ozs.

WALLEYED PIKE	
H. M. Johnson	6 lbs. 8 ozs.
Kevin Hurt (son of S. S.)	4 lbs. 12 ozs.
R. T. Santoro	3 lbs. 6 ozs.

Physics gong show to highlight picnic

The annual Physics Division Picnic will be held on Saturday, August 20, at Carbide Park. This year's festivities will include ball games and a "Dunk-Your-Boss" contest in the afternoon. Hamburgers and hot dogs with all the trimmings will be served around 6:30 p.m.

The grand finale will be the Physics Division Gong Show talent show featuring the division's own talent! Tickets must be purchased by August 15th by calling Anita Barker, 3-1496, Bldg. 6000, or Imogene Wilker, 3-0141, Bldg. 6003.

safe thinking . . .

SCREWDRIVING COINS—A dime (or other coin if its size is more suitable) makes a safe screwdriver for something small that has to be held in the palm of the hand to be worked on. A conventional screwdriver might slip and gouge the hand.

Y-12 fishing rodeo. . .

The Recreation Department issues prizes for the first half of 1977 in the nine-species fishing contest. Uncollected prizes are at Building 9711-5.

Winners were:

LARGEMOUTH BASS	
A. L. Everett	7 lbs. 8 ozs.
W. R. Jago	7 lbs. 5 ozs.
G. D. Watson	6 lbs. 6 ozs.

SMALLMOUTH BASS	
Larry Walker	4 lbs. 6 ozs.
W. A. Kramer (Ret.)	3 lbs. 12 ozs.

STRIPED BASS	
R. E. Belcher	2 lbs. 2 ozs.

BREAM, BLUEGILL	
L. E. Wyatt	14 ozs.
S. D. Teague	12.5 ozs.
G. H. Gaylor	8 ozs.

CRAPPIE	
W. G. Story (Ret.)	2 lbs. 8 ozs.
J. L. Parrett	1 lb. 10 ozs.

HYBRID/ROCK	
J. E. Cheek	14 lbs. 8 ozs.
D. H. Mosley	9 lbs. 6.5 ozs.
H. T. Hill	5 lbs. 10 ozs.

ROUGH FISH	
U. M. Oxford	23 lbs. 8 ozs.
J. W. Graves	22 lbs. 15 ozs.
E. J. Delaney	22 lbs. 12 ozs.

SAUGER	
E. M. McCullough	3 lbs. 4 ozs.
R. Mackey	2 lbs.
C. B. Stonge	1 lb. 14 ozs.

WALLEYED PIKE	
R. F. Graham	5 lbs. 6.0 ozs.
G. E. Carden	5 lbs.
L. Thurman, Jr.	4 lbs. 12 ozs.

Paducah golf. . .

The July 23 Rolling Hills Scrabble championship team captained by Jake Piercy and supported by first place players Bill Longton, Andrew Mason and Kay Wurth. The scrabble's PGDP pros scored an imposing 64 for a 7 under par. The second place titlists included Bob Holler, Cris Mason, J. W. Harbison and Dot Simmons scoring a 67 for a 4 under par. The third place team totaling 68 consisted of Mike Mazzone, Jeff Vandeven, Bernie Tilford and Toni Piercy. Eurie Smith led team members Gene White, Bob Peeler and Peggy Warren to a 3 under par 68 for the fourth place position. The fifth place scorers were Dave Fuller, Bob Gifford and Mary Kosinski headed by Chuck Turok and claiming a 2 under par 69.

League play for both men and women is still going on at Paducah's Paxton Park. Any interested players may contact the Recreation Department.

Women bowlers. . .

The ORGDP Women bowl on Tuesday nights at 5:45 p.m. at the Ark Lanes. They would like to increase their league from 10 teams to a maximum of 14 teams. Anyone interested please call Martha Britt, 3-5589, or attend the organizational meeting to be held at the Ark Lanes, August 15, 1977 at 7:00 p.m.

77-90



THE STREAKERS—A flawless record of 13 wins and no losses is sported by the Streakers, one of the mixed teams in the Carbon League.

ORGDP fishing rodeo. . .

ORGDP fishermen produced winners in their semi-annual fishing rodeo, 11 categories listed. Winners may pick up their awards in Building K-1001, Room C-136.

They were:

LARGEMOUTH BASS	
J. D. McClendon	6 lbs. 14 ozs.
J. D. Herrin	5 lbs.
C. E. Whited	4 lbs. 4 ozs.

SMALLMOUTH BASS	
C. M. Parker	6 lbs.
D. C. Howard	5 lbs.
J. R. Payne	4 lbs. 5 ozs.

STRIPED BASS	
C. W. Castle	2 lbs. 13 ozs.
J. T. Asbury	2 lbs. 9 ozs.
W. M. Cox	1 lb. 5 ozs.

BREAM, BLUEGILL	
Brookie Heidle (daughter of W. H.)	1 lb.
Huey Sides	11 ozs.
Tim Cox (son of W. M.)	6 ozs.

CRAPPIE	
E. M. Zukowski	1 lb. 8 ozs.
J. D. Hart	1 lb. 4 ozs.
B. A. Austin	1 lb. 3 ozs.

HYBRID/ROCK	
R. E. Collins	28 lbs. 8 ozs.
B. E. Woody, Jr.	20 lbs. 4 ozs.
J. L. Ailey	16 lbs.

ROUGH FISH	
L. C. DeBord	25 lbs. 8 ozs.
W. A. Price	7 lbs. 12 ozs.

SAUGER PIKE	
H. E. Walters	2 lbs. 7 ozs.
D. J. Tenault	1 lb. 12 ozs.

TROUT	
C. T. Bolen	2 lbs. 6 ozs.
Joe Walker	2 lbs. 2 ozs.
Greg Cable (son of J. C.)	1 lb. 4 ozs.

WALLEYED PIKE	
W. R. Hartsell	7 lbs. 1 oz.
W. E. Brown	3 lbs. 12 ozs.*
W. H. Caylor	3 lbs. 12 ozs.
*Wider in girth	

MUSKIE	
J. G. Conner	14 lbs. 8 ozs.

safe thinking . . .

MULTI-PURPOSE SOAP—can be used to safely check a suspected gas leak. Soap and water, when mixed to the proper consistency and applied with a brush to a gas pipe joint where there's a suspected leak, serves as a detector. Bubble formation indicates a leak. Soap also makes a good lubricant to use in loosening and freeing a stuck finger.

ORGDP

RIDERS from van pool from West Knoxville area to any portal, straight day. Dave Hackett, plant phone 3-9679, home phone Knoxville 584-6547.

Tee-Off Time Application for August 27

(Check Appropriate Plant)

ORGDP—DEAD HORSE LAKE

Y-12—WALLACE HILLS

ORNL—SOUTHWEST POINT

1. _____ Leader _____
 2. _____
 3. _____ Phone _____
 4. _____ Time Preferred _____



COMPLETE AND RETURN TO THE RECREATION OFFICE

Entries must be received prior to drawing on August 24, 2 p.m.

Y-12—Building 9711-5

Tee-off times for all tournaments will be drawn on Wednesdays prior to each Saturday's tournament. Golfers are responsible for reserving their own carts by contacting the pro shop following drawing for tee-off times. Please call the Recreation Department, 3-5833, after 3 p.m. Wednesday for tee time.

174429



PLAN Y-12 DRIVE—Heading Y-12's participation in the Nuclear Division's 1977 United Way campaign are, from left, Spence Wallace, solicitor training; Terry Calhoun, associate chairman (ATLC); Nat Schulman, publicity chairman; Jim Sykes, assistant chairman; Jerry Dunn, chairman; Norm O'Neal, associate chairman (ATLC); Dick Truitt, associate chairman (IGUA); and Lew Spivey, treasurer. Not present for the photo were Charles Robinson, associate chairman (ATLC), and Wilbert Minter, materials manager.

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.

Promotion without raise?

QUESTION: If an exempt salaried person is promoted to a position which has carried a particular title and salary code, is it the Nuclear Division policy to place that person in the salary code for that position and change his title? For example, I was "promoted" nine months ago but with no change in title and no change in salary code, and, of course, no salary increase.

ANSWER: It is the Nuclear Division's policy to have employees properly classified within the salary structure. If an employee is promoted or changes his/her position to a different job with a higher or lower salary grade, it is desirable to reclassify the employee as soon as possible. The salary would also be reviewed at that time with consideration given to position in rate range and other factors.

Occasionally, an employee is moved to a higher or lower level position for developmental purposes on a temporary basis. This employee would not be reclassified until management decides on a permanent organizational appointment.

"If, however, unusual workload conditions require that all exempt employees in an entire department or group be scheduled for extra hours of work on a continuing basis over an extended period of time, it is company policy to place these employees on an extended work schedule which provides for additional compensation."

Although an hourly or weekly employee may occasionally receive more compensation for a given pay period, over the long pull their earnings do not exceed those of monthly employees.

(Editor's note: The following question was inadvertently answered only in part in the last issue. Its complete answer is printed below.)

Overtime Compensation

QUESTION: At the Paducah plant employees have been working a large amount of overtime. Several months ago many departments were requiring a set amount of overtime per week to meet increased workloads.

When weekly and hourly employees are paid for their overtime, often their take-home pay is more than that of the monthly paid person. Can't something be done to correct this inequity?

ANSWER: Company policy regarding this subject was stated as follows in an earlier Question Box answer.

"Exempt employees are expected to work a certain amount of overtime, if this is necessary to accomplish their assigned responsibilities. If only a limited number of employees are involved, it is intended that some compensating time off be used to offset overtime if significant amounts are necessary over an extended period of time.

"If, however, unusual workload conditions require that all exempt employees in an entire department or group be scheduled for extra hours of work on a continuing basis over an extended period of time, it is Company policy to place these employees on an extended work schedule which provides for additional compensation."

Although an hourly or weekly employee may occasionally receive more compensation for a given pay period, over the long pull their earnings do not exceed those of monthly employees.

about people..



Clark



Johnson

Betsy Clark, Computer Sciences Division at ORGDP, recently took honors in the Speak-Up contest in Seattle, Wash. Sponsored by the Jayettes, the competition centers on speaking contests for local, regional and then state levels. Clark took the state level's top slot, then went on to the National Jayettes Convention. Her husband, Dennis, is in Computer Sciences Division. They live in Kingston.

Neil P. Johnson, Biology Division, has been awarded a one-year American Cancer Society postdoctoral fellowship to conduct research in cancer chemotherapy. He will investigate the mechanisms by which a platinum compound exerts its effects against ovarian and testicular cancers. In conducting his research in the molecular and cellular sciences section, Johnson will utilize medical facilities unique to ORNL. A native of Oregon, he has a B.A. degree from the University of Oregon and a Ph.D. from the University of California at Santa Cruz. He is a member of the Biophysical Society. He joined Union Carbide early this year and lives at 109 Briar Road, Oak Ridge.

James E. Beavers, Y-12 Structural and Architectural Engineering, was recently named "Young Engineer of the Year" at the Tennessee Society of Professional Engineer and Consulting Engineers of Tennessee joint honors and awards banquet. Beavers is president-elect of the Oak Ridge Chapter of TSPE and a registered professional engineer in two states. TSPE selects its YEOT for high standards of technical excellence, contributions to TSPE programs and projects, continued growth in professional responsibility, and participation in community affairs. Beavers and his wife, Beverly, live in the Karns community with their two sons.



Colin West, new Program Planning and Analysis Office (PP&AO) staff member, is heading a study of ORNL's relationship with the Nuclear Regulatory Commission (NRC) and managing the next phase of the ORNL Institutional Plan. His NRC work, in particular, will necessitate his working with many personnel throughout the Nuclear Division. This is a two-year appointment.

West comes to the Laboratory from the Atomic Energy Research Establishment at Harwell, near Oxford, England. In 1973 he worked with PP&AO on the nuclear medicine report, the stable isotopes project and also with Norman Anderson on the Molecular Anatomy (MAN) program.

He received his B.S., master's and doctorate degrees in physics from the University of Liverpool.

Donald B. Trauger, associate director for nuclear and engineering technologies at ORNL, was awarded an honorary doctor of science degree from Wesleyan College in Athens. He was one of three honorary degree recipients at Wesleyan's 120th commencement exercises.

Trauger received an A.B. in physics from Nebraska Wesleyan University and did graduate study in physics and engineering at Columbia University. In 1942, he joined the Manhattan District Project at Columbia and continued working on the project when he moved to Oak Ridge in 1944.

He has worked on the Oak Ridge Gaseous Diffusion Project, researched irradiation of nuclear fuels at ORNL, and served as director of ORNL's Gas-Cooled Reactor Program. He and his wife, Elaine, live in Oak Ridge.



next issue...

The next issue will be dated August 18. The deadline is August 10.

wanted...

ORNL

CAR POOL MEMBER from areas of Suburban Shopping Center, Kingston Pike or Walker Springs Road, Knoxville, to South Portal, 8-4:30. E. L. Fair, home phone 693-3211, plant phone 3-6775.

The corporate world . . .

(Continued from page 1)

The UNIRET-I scanning system uniquely combines the best of nuclear imaging with computerized data processing — two techniques that have revolutionized the capability to detect more accurately certain cancers and other diseases. Known technically as radioisotope reconstructed tomography, this development provides three-dimensional pictures of distinct parts (slices) of the brain to detect the exact location and shape of abnormalities that might be missed or not seen as clearly by other imaging systems.

Unlike the Computerized Axial Tomography (CAT) X-ray imaging devices introduced in the early 1970's, the UNIRET-I system depicts various aspects of brain function rather than merely producing pictures of tissues according to differential X-ray absorption. The function to be visualized determines which radiopharmaceutical is used and the procedures usually involve only a fraction of the radiation exposure to the patient than is received from CAT devices.

Union Carbide's system is also much less expensive than the CAT device. "The development is by no means a universal panacea," it was pointed out, "but it does add one more critical diagnostic weapon heretofore unavailable."

A unique new boiler is enabling Union Carbide's Brownsville, Texas, petrochemical plant to save energy as it fights pollution. The specially-designed boiler uses aqueous chemical wastes as its primary fuel in generating 600-pound process steam for plant use, which will enable the plant to cut its natural gas needs by three million cubic feet per day — a savings in fuel costs of approximately \$600,000 a year.

anniversaries . . .

35 Years

ORNL



Harris

Warren W. Harris, research staff member in the Metals and Ceramics (M&C) Division, joined the Nuclear Division June 22, 1942.

Before coming to ORGDP, Harris was a research associate at Columbia University, exploring the potential of the gaseous diffusion process. In 1968 he transferred to ORNL and the MAN Program. From there, Harris joined ORNL's Physics Division and finally, in 1976, he came to M&C.

Harris received the B.S. degree in chemistry from Columbia University. He and his wife, Terry, live at 101 Damascus Road, Oak Ridge.

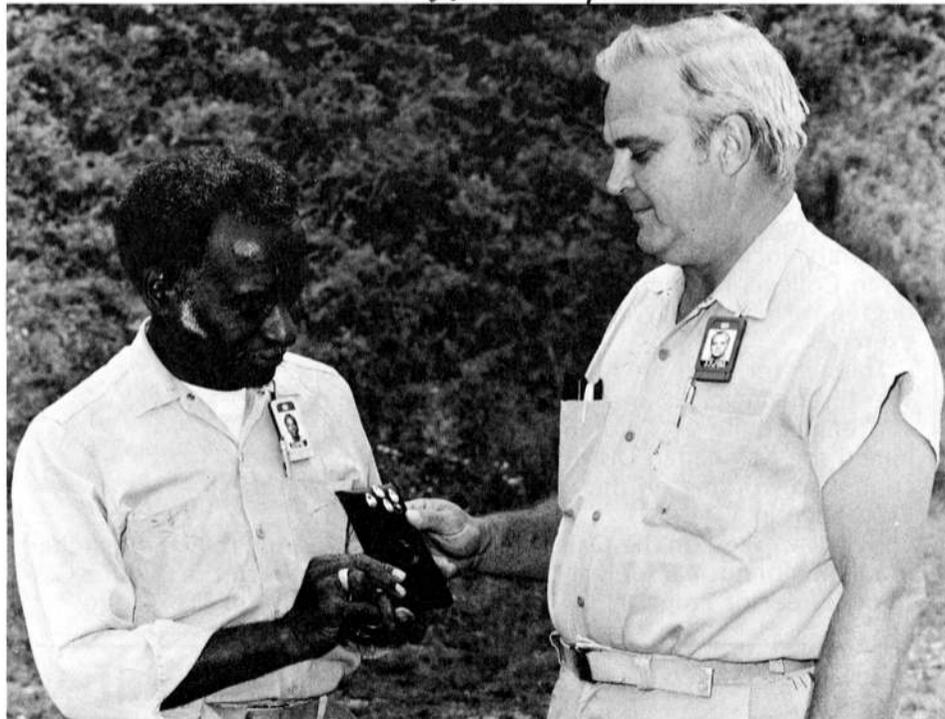
3361-77

wanted . . .

Y-12 PLANT

RIDE from 400 Lakeview Road, Kingston to Central or North Portal, straight day. Della Welton, plant phone 3-5237, home phone Kingston 376-6890.

2781-77



PROUDLY WEARS NO INJURY PINS—At left, Bennie O. George, Plant and Equipment (P&E) laborer, shows his four "No Injury Pins" to Gordon W. Jones, P&E electrician and a 10-year "No Injury" veteran. These pins are presented to craftspersons who have gone an entire year without a job-related injury. George is proud of his record and displays his pins on the upper portion of his glasses case, which forms a badge above his shirt pocket. Fabrication Department had 25 employees reach nine years without an injury, and ten employees to reach eight years.



DRIVE-IN WINDOWS—Members of Y-12's Credit Union are now using the first TV-teller facility for credit unions in the state. The unit is located on the end of the new parking area for convenience of members wishing to make deposits, withdrawals and payments from their vehicles.

Martin promoted



Martin

Billy D. Martin, Plant and Equipment (P&E) Division at ORNL, has been promoted to maintenance supervisor in the Building and Utility Services Department.

In his new position, Martin will oversee routine maintenance of mechanical and heating equipment, such as water heaters and the supply of hot water, determining that such equipment is working efficiently.

Martin and his wife, Betty Sue, live at 514 Crestwood Drive, Clinton. They have two daughters, Jill and Greta.

3326-77

safe thinking . . .

SEAT BELT USE

If all passenger car occupants used safety belts at all times, such use would save at least 12,000 lives annually by preventing ejection from the vehicle and reducing contact with the vehicle interior and other occupants.

MORE LIGHT NEEDED

If your headlights don't seem as bright as they once were, here's why. Research shows that every 13 years your eyes require twice as much light as before in order that you may see as much. At age 46 you need four times as much light as you did at 30. Regulate your night speed accordingly.

Editor's Note — Don't be selfish with your safety tips! Call the Nuclear Division News Office, and tell us your stories or hints on safety.



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