



NUCLEAR DIVISION NEWS

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

Vol. 3 — No. 6

Thursday, April 20, 1972

QUESTION BOX

If you have a question on company benefits, policies, etc., just drop it in the mail to the Editor, Nuclear Division News, Building 9704-2, Y-12. You may or may not sign your name. It will not be used in the News.

Question: What advances are really being made in placing women in positions where they will be trained for jobs in semi-managerial or managerial areas?

Answer: An Affirmative Action Program has been established. Goals have been set by the installations to greatly increase the number of professional and managerial women. We are off to a good start—15 women college graduates have accepted employment since July, 1971, and they are 34 percent of the total accepting. The professional and other women on our staff will provide a source of managerial talent. Steps have been taken to set up a training program to qualify women for managerial jobs. Women presently on our payroll are being reviewed to determine which are qualified or can be qualified with further training for managerial jobs.

Question: When will Carbide's contract with the AEC for operating the Oak Ridge plants expire? Will it likely be renewed?

Answer: The present contract between Union Carbide Corporation and the Atomic Energy Commission will run until June 30, 1973. It was signed in October, 1969, extending it for three years from June 30, 1970. It has been extended and amended many times since the original contract began in 1943.

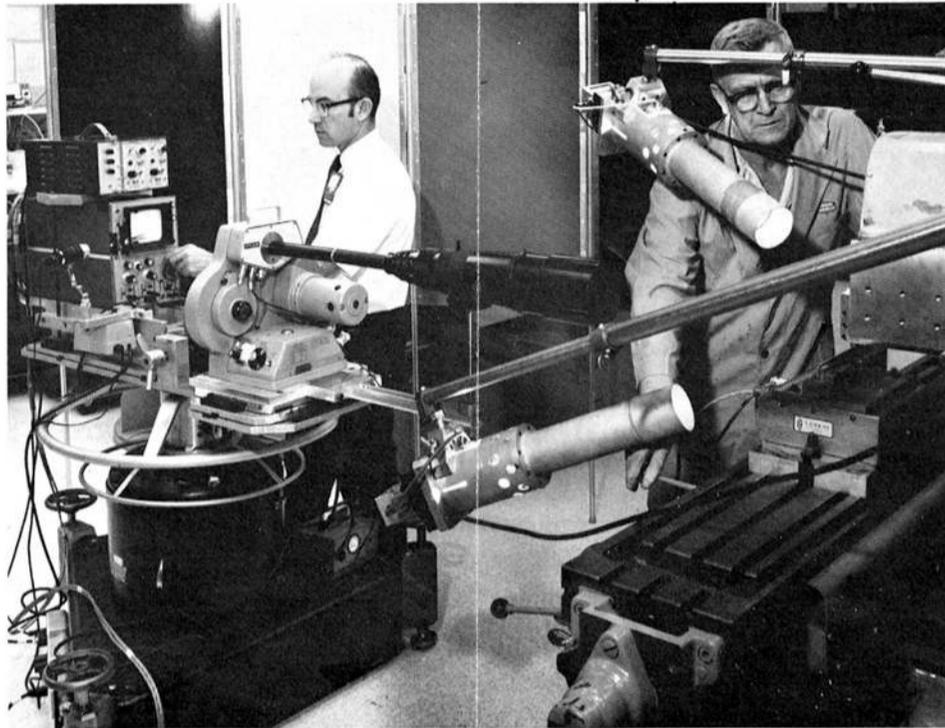
An AEC official stated at the time of the 1970 extension, "The work carried out by Carbide in the nuclear energy field is diverse and complex, but the talent and dedication that have been applied to the many challenging assignments have assured their success. I am confident that the same success will be achieved in the years ahead as the four plants work toward fulfilling their commitments to national defense, scientific research and the nuclear power industry."

Discussions regarding contract renewal beyond 1973 have not yet started.

Question: When will Carbide Park open for the season?

Answer: The Clark Center Recreation Park opened officially April 17 for the 1972 season. Admittance to the park is restricted to employees of the Nuclear Division of Union Carbide Corporation, the Atomic Energy Commission, Oak Ridge Associated Universities, and The University of Tennessee employees at the Agricultural Research Laboratory. New decals (colored orange) will be required after the Memorial Day holiday. Application for the new decal may be

(Continued on Page 8)



METAL-CUTTING AID—This equipment, which consists of a high-speed camera, special lenses and a series of lights, is being used by Y-12 development specialist Roy L. Williams, left, to study metal-cutting problems. Assisting Williams is John E. Clemons.

High speed motion photography used to study Y-12 metal-cutting problems and techniques

The Oak Ridge Y-12 Plant is using high-speed motion picture photography to study metal-cutting problems that cannot be seen with the human eye.

Since most metal-cutting operations occur too rapidly for the human eye and brain to record, machine tool engineers have found it difficult to achieve a comprehensive understanding of the interaction between such variables as tool material, tool geometry, cutting speed, feed, depth of cut and coolants. Although the application of high-speed motion picture photography toward the solution of metal-cutting problems is

Toll enrichment high seen for first quarter

More than \$17 million in toll enrichment sales were recorded at the Oak Ridge Gaseous Diffusion Plant during the first three months of 1972.

During the first quarter of the year, approximately 310,000 pounds of enriched uranium was shipped for use in nuclear reactors in Italy, Sweden, Switzerland, and in the states of Alabama and Michigan.

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.

Toll enrichment was authorized by Congress in January, 1969. Since then, more than \$200 million in services have been provided for nuclear fuel systems in the USA and the free world.

not new, previously it has been difficult to obtain pictures of sufficient clarity.

The Y-12 experiments, conducted by development specialist Roy L. Williams, involve the use of a rotating prism camera that films up to 11,000 frames per second (compared to the standard 16 to 24 frames per second) and a series of lenses to focus intense beams of light on a one-inch diameter area where the action occurs.

Motion pictures made with the setup devised by Williams with the assistance of a private instrumentation firm have been used to define such metal-cutting problems as tool chatter, end-mill run-out, chip formation and subsurface grain deformation.

Details of the technique will be described at the Society of Manufacturing Engineers' International Engineering Conference and Tool Exposition in Chicago, April 24-28, and will be available in SME paper MR72-139, "High-Speed Motion Pictures for Metal Cutting Analysis."

Ledgerwood son picked by school as UCC scholar

Mikle D. Ledgerwood, son of Mr. and Mrs. Jay L. Ledgerwood, 110 East Tennessee Avenue, Oak Ridge, has been selected to attend a Washington Congressional Workshop as a Union Carbide Scholar.

Ledgerwood was recommended for the honor by the faculty at the Oak Ridge High School. His nomination was supported by Union Carbide Corporation's Nuclear Division, where his father is employed in Dimensional Inspection at the Oak Ridge Y-12 Plant.

As a recipient of the honor, Ledgerwood will participate in a seminar from July 23-30. Participants are housed at Mount Vernon Junior College where most of the seminar sessions will be conducted.



Ledgerwood

The curriculum for the seminar will include classes, discussions with members of Congress, attendance at House and Senate Chamber sessions and committee meetings, and talks by Cabinet members and other national

leaders, both in and out of government. Special attention will be given to the Presidential election campaign, its issues, its candidates, and its political responsibilities for the new voter. Many of the Presidential candidates will be speakers, and spokesmen from the Republican and Democratic National Committees will meet with the participants.

Ledgerwood, a senior at Oak Ridge High School, has an "A" average. He is president of the Anderson County Youth Leadership Council, president of the National Honor Society, Student Council Committee chairman, United Nations Club president and American Field Service president. For the past two years he has participated in the North American Model UN Assembly.

The full cost of Ledgerwood's participation in the Congressional Seminar program is being defrayed by the corporation.

NUCLEAR DIVISION SAFETY SCOREBOARD

"A Safe Place to Work"

Time worked without a lost-time accident through April 13:

ORGDP	97 Days	1,321,000 Man-Hours
ORNL	2 Days	54,280 Man-Hours
Paducah	163 Days	1,100,000 Man-Hours
Y-12	177 Days	6,585,000 Man-Hours

Safety is everyone's concern!

In-plant driving presents potential for personal injury to all involved

The potential is there. The potential for an accident, that is. Wherever an auto exists there exists the spectre of serious injury to life and limb. And, when you consider the man-hours Nuclear Division employees spend behind the wheels of an auto, you marvel at the infrequency of in-plant accidents. (Admittedly, our off-the-job records are no better than anyone else's.)

In-plant motor vehicle accidents have not been characterized by physical injuries as severe as those sustained in off-the-job accidents by employees of all four Nuclear Division plants. Certainly, off-the-job auto accidents have reached alarming proportions. In one plant alone last year, 19,759 man-hours were lost due to motor vehicle accidents away from work . . . and three employees lost their lives from the same plant in highway mishaps.

But as long as the potential for serious injury is within the plant wherever a moving vehicle exists, it is our responsibility to keep these accidents at a minimum.

Safety officials have stated that about 85 percent of all in-plant motor vehicle accidents were due to two principal causes:

1. Backing up and striking stationary objects or other non-moving objects or other non-moving vehicles. The most often involved stationary objects were metal guard posts installed to protect fire plugs, sprinkler system valves, steam line supports, etc.

2. Forward moving collisions with stationary objects or non-moving vehicles. Typical stationary objects involved in this type of accidents are the metal guard posts adjacent to guard shacks, security fences, etc.

Both of these causes indicate a lack of awareness, alertness or attention to immediate surroundings. Alertness is a prerequisite in any accident improvement effort. It is interesting to note that employees who operate motor vehicles on essentially a full-time basis are involved in only about 50 percent of the motor vehicle accidents. The other half of the accidents are attributed to the other occasional driver like you and me.

By following some basic rules of the road for the operation of motor vehicles, we could improve our performance in motor vehicle safety both on and off-the-job.

- Always drive defensively inside the

plants as well as outside. Wear your seat belt, and shoulder straps, if available. Practice courtesy. Exercise good judgment in determining safe speeds, evaluating road conditions, weather, visibility, etc.

- Operate each government vehicle as though it was your very own private automobile. These vehicles are purchased with **your** tax dollars, so, in a manner of speaking, they are yours.

- Cultivate a habit of looking around any motor vehicle before you move it. This practice could keep you from running over a child at home or some stationary object such as a metal guard post in the plant.

- Obey all traffic signs and signals. These are installed for your protection in the prevention of accidents. Any contempt and disregard you may have for these signals are signs that something is wrong with your attitude which could result in tragedy.

- Never leave a vehicle with the motor running. Better still set the hand brake. Several models of autos in the plants will not stay in one place unless the hand brake is set . . . especially on a hill. Many accidents have occurred with rolling, run-away vehicles.

- Respect the other driver. Be alert to a change of mind he might contemplate.

- Do not take short cuts. Many safety experts believe that short cuts often lead to serious collisions.

Like Safety says, the potential for a serious injury is there . . . as long as we drive a moving vehicle. It is up to us to keep those injuries to a minimum, or, better still, eliminate them altogether.

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Savings Bonds

You'd be surprised how fast money accumulates when you save systematically and effort-free. Purchasing U.S. Savings Bonds through payroll deduction is just about the easiest method there is to save money. And look: if you invest \$75 a month for 15 years and 10 months, you save \$22,225 . . . which includes \$7,975 in accrued interest, which is not taxable on exchange. Your bond representative can give you more facts on this effortless way to save.

ORNL



COMPLETE STOP—ORNL's Gaye Lay comes to a complete stop at a stop sign. The Safety Department urges 100 percent observance of all traffic signs, both in and out of the plants.



SEAT BELT SAFETY—Linda Neal, Y-12's Wage and Salary Administration, buckles both seat belt and shoulder strap in the official vehicle she is about to drive. The National Safety Council estimates about half the deaths and more than that of the injuries could be prevented by the proper use of seat belts.

6-19244



BACKING UP—More than half of the automobile accidents sustained in Nuclear Division plants occur during backing up. Guard rails, other vehicles, utility poles and other obstacles get "in the way." Here a driver demonstrates the proper way to back out of a parking area. The Safety Departments recommend a short toot on the horn to let other drivers know you are backing out.

NUCLEAR DIVISION NEWS



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NUCLEAR DIVISION

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Haagen-Smit, expert on smog, sets seminar

Arie Jan Haagen-Smit, professor of bio-organic chemistry at the California Institute of Technology, will present a seminar at ORNL on May 4 on "Chemistry and Control of Photochemical Smog." The seminar will be in Central Auditorium at 2:30 p.m.

Haagen-Smit is a leading authority on air pollution. In 1950 he determined the photochemical processes that produce smog in the Los Angeles Basin. Later experiments have dealt with the dangerous concentrations of carbon monoxide in crowded traffic conditions.

Presently he serves on the Advisory Committee for Biology and Medicine of the USAEC, is a senior consultant of the Los Angeles County Air Pollution Control District, is chairman of the State of California Air Resources Board and a member of the Governor's Environmental Quality Study Council.



ACHIEVEMENT AWARDS—Fabrication and Maintenance Division men at ORGDP received achievement awards recently. They are, from left, Jerry L. Pack, Larry A. Studinger, superintendent, who made the presentations; Willie J. Robinson and James D. Wilkerson. Pack and Robinson completed courses in machine maintenance, and Wilkerson completed the welding course.

Y-12 men participate in technical meetings



Oak Ridge Y-12 Plant engineers participated in several regional and national meetings in April.

Coleman C. Wright, Laboratory Development, participated in a panel program at the American Society for Engineering Education meeting at the University of Tennessee Knoxville campus, April 6. He and other panel members discussed "The Role of the Digital Computer in Engineering Education and Engineering Practice."

Robert E. Hewgley, Fabrication Systems Development, discussed "Development of Testing Lathe for the Study of Machining Optimization" at the Institute of Electrical and Electronic Engineers Conference at UT, April 10-12.

Chester L. Estes and Paul W. Turner, both in Laboratory Development, authored a report, "Laser Welding on Liquid-Metal Fast Breeder Reactor Fuel Failure Mockup," which was presented at the American Welding Society in Detroit, April 10-14.

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Monument enough

"Lay my ashes at the roots of a dogwood tree in Paducah at the proper planting season. Should the tree live, that will be monument enough for me."
—Irvin S. Cobb.

Reporting Changes

Had a change in family or marital status lately? If so, this change should be reported to your Employee Relations department. You should report any changes to make sure that records are accurate for insurance and other benefit plans.

Often these changes are regarded as personal by the employee who then neglects to report them. However, serious problems often arise because records are incorrect. Problems like these might arise:

FAILURE TO REPORT BIRTH OF A CHILD . . . When the child required medical coverage, the insurance would not pay if there was no record of the child. Of course, family insurance coverages includes children of employees WHEN the records show the child as a dependent.

FAILURE TO CHANGE BENEFICIARY OF GROUP LIFE INSURANCE . . . Situations have existed where an ex-wife is listed as the beneficiary. Since the beneficiary was not changed at the time of the divorce, the children of the deceased employee's ex-wife could contest the distribution of the life insurance. Also the beneficiary might have died since being listed.

FAILURE TO CHANGE BENEFICIARY ON SAVINGS PLAN . . . A case like this might arise. Children of an ex-wife were listed as beneficiaries. At the time of the divorce, the employee chose not to change them. Later he changed his mind, but failed to notify Employee Relations. The proceeds went to his first children.

FAILURE TO REPORT A MARRIAGE . . . It was discovered that an employee, who was married, was still enrolled in the hospitalization plan as being single. No coverage for his expectant wife. Fortunately this one was caught in time.

These are just a few of the problems that can arise from inaccurate records. Several times the person Employee Relations has been instructed to notify in case of emergency was an ex-wife. This can be embarrassing as well as unsatisfactory.

Play it safe. Check your group life insurance and other records at home. If they are not up-to-date, stop by your Employee Relations department to make the necessary changes. A few minutes time now may save a lot of trouble in the future.

Savings bond drive success is seen in preliminary reports to leaders

Six organizational units have achieved 100 percent participation in the U. S. Savings Bond program at the Nuclear Division, according to Kenneth W. Sommerfield, general chairman of the drive.

"Although the effort is just getting under way, we are confident that we are going to have an excellent response to this year's drive," Sommerfield said.

First 100-percent units include: Operations Engineering, Computer Applications, Product Analysis and Reports, and Laundry and Food Service, all at the Oak Ridge Gaseous Diffusion Plant; Cashier and Travel, Oak Ridge Y-12 Plant; and General Industrial Relations.

The effort, which started April 10, will continue through May 5.

Sommerfield said that the goal of this year's drive is to achieve 50 percent participation at each of the four Nuclear Division facilities. At present, the Oak Ridge Gaseous Diffusion Plant has passed the 50 percent level and is entitled to display the "Minuteman Flag" which was presented last year by the U. S. Treasury Department.

To participate in the Payroll Savings Plan requires a minimum investment of 50 cents a week or two dollars a month. In order to participate, employees must fill out a payroll authorization card in which they indicate the dollar value of the bonds they wish to purchase. While bonds come in various denominations, the most popular are the \$25, \$50 and \$100 bonds.

Only those employees who are not yet participating in the Payroll Savings Plan will be contacted. However, em-

ployees wishing to change the amount they are saving can do so by filling out a "Payroll Savings Authorization Card—U. S. Savings Bonds."

The drive chairman said that as the result of the Savings Bond effort, more than 5,000 Nuclear Division employees are now purchasing Savings Bonds through the Payroll Savings Plan.

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COMPANY SERVICE
—20-25-30—

PADUCAH

25 YEARS

Leon W. Lindblad.

20 YEARS

Jackie E. McCaw, Loman T. Haynes, Jr.; Joseph A. Lovelace, Carlee Fowler, Clifford R. Adams, Charles A. Bean, James M. Jackson, Peter Harrison, J. S. Lyell.

ORGDP

20 YEARS

Martha H. Rinehart, Parley H. Madewell, Paul L. Hicks, Bobbie J. Robinson, Ralph G. Knight, Jr.; Lewis D. Mathis, Albert Smith, James E. Runkles, L. Wayne Holman, Walter B. Rainey, Paul L. Arnwine, Grant W. Sitzler, Georgia M. Anderson, Mary S. Ledford, Edward Von Halle.

30 YEARS

March 15, 1942, marked the hire-in date for John J. Schariter, Barrier Design Development at ORGDP.



Schariter

Schariter came with Union Carbide Corporation at the S.A.M. Labs, New York, and transferred to Oak Ridge May 1, 1945. He lives at 208 Kelsay Drive, Kingston.

Y-12 PLANT

25 YEARS

Troy L. Curnutt, Jr.; Jane B. Bowen, Ernest F. Greer, Jerry C. Hastings, George F. McPherson, Wilbur R. Olka, Ava Jackie Lyons, Jack Scott, Winfred C. Collins.

20 YEARS

Ralph B. Stonecipher, Dennis L. Moore, W. Boyd Crowder, Earl W. Smith, Calvin H. Goins, Jo B. Isham, Arville G. Hardwick, Spurgeon H. Guy, Clyde H. Laughlin, Bobby Steele, John S. McMurray, Howard A. Phillips, Amos A. Gibbs, William B. Motley, Jr.

ORNL

25 YEARS

William M. Fair, John C. Griess, Jr., Samuel U. Hamric, Florence S. Hicks, Charles D. Bopp, Clyde E. McFarland, Thomas F. Roberts, Bert G. Catron, Corinne R. Henson, George S. Chilton, James L. Sellers, Howard C. Graham, Floyd L. Culler, Jr.

20 YEARS

Ross K. Goosie, Gordon W. Jones, William T. Wolfe, Thomas A. King, Jr., Robert C. Satterfield, Kathleen I. Webb, James G. Clem, Lamont C. Bate, Garnett V. Justice, Edmond C. Fearnow, Charles E. Stanley, Forrest W. Schmollinger, William H. Houston, Ruth C. Woods, Ben M. Benjamin, Fred A. Heddleson, Hugh A. Bishop.

'Original' Americans lend talents to AEC

Two Indian tribes in the Rocky Mountains operate new atomic age businesses which produce protective apparel used by nuclear workers at the Atomic Energy Commission's National Reactor Testing Station (NRTS) in southeastern Idaho.

At Fort Hall, the Shoshone-Bannocks—descendants of native Americans who were already on the scene in the 1830's when the first settlers' wagons rumbled across the land on the way to Oregon—specialize today in making nuclear-age "moccasins." These canvas slip-on shoe covers are worn by NRTS workers in work areas having potential for radioactive contamination. After each wearing, the shoe covers are removed to prevent possible tracking of contamination from the work area, and then laundered in a special facility before being used again.

Three hundred miles north of the testing station, at Heart Butte, Mont., Blackfeet men and women are busy tailoring protective laboratory coats and gloves in the land where their forebears conducted a lively commerce in furs. Like shoe covers, the coats and gloves are cotton protective clothing worn in nuclear work areas.

Both contracts were negotiated by Aerojet Nuclear Company, an NRTS operating contractor, as part of a program to shorten supply lines and cut procurement costs. The garments being manufactured by the two tribes are helping met that goal.

Aerojet Nuclear also draws on skilled Indian manpower at the Station itself, where colorful surnames like Calico, Afraid-of-Bear, Eagle, and Bear Stops appear on employee rosters.

Paducah's son solo flight made recently

Stephen R. Brust, son of Mr. and Mrs. Ray Brust of 203 Forest Circle, Paducah, recently received his certificate of solo flight from his commanding officer of Training Squadron One at NSA Saufley Field, Pensacola, Fla.

Brust, a Naval Air Reservist, began his six-year stint after his recent graduation from the University of Kentucky.

His proud parents are both employed at the Paducah Plant site, the father in the Operations Division at the Paducah Plant, and his mother in the Atomic Energy Field Office. The parents pointed out that Brust notified them of the soloing after the fact, leaving the distinct impression that they were just as glad he did!



Stephen R. Brust

European tour plans made by credit unions

Plans for the fall tour of central Europe sponsored by the Oak Ridge Chapter of Credit Unions are on schedule. Capitol International Airways has reserved the plane for 9 p.m. departure from Knoxville, Friday, September 22. Return will be to Knoxville at 4 p.m., Sunday, October 8.

Dick Anderson Group Tours of Winston-Salem, N. C., is completing plans for moving the group along the ground route (Vienna, Innsbruck, Venice, Florence and Rome) by motor coach.

A do-it-yourself-by-car option is being planned for the more adventuresome.

Information on reservations will be announced at a later date. A \$100 deposit will be accepted after a yet to be announced May meeting of persons interested in taking the tour. Package price is \$580 per person. Plan your fall vacation now.

Nuclear safety group plans special seminar

Walter H. Jordan, senior research advisor, will speak on "Rulemaking—Purpose, Need and Scope," at the Nuclear Safety seminar April 21 in the 4500 Central Auditorium. The meeting will be held at 9:15 a.m.

A special Nuclear Safety Program seminar will be held at 9:15 a.m., May 4 in the 4500 East Auditorium. Featured speaker will be William Vinck, director-general for industrial, technological and scientific affairs for the Commission of the European Communities. He will speak on "Nuclear Safety Within the European Communities."

Some of the Things you are enabled to do by buying United States Savings Bonds



Visit and explore Punxsutawney, Pa.

Bivens, King, Stewart, Wright and Wrights recent ORGDP promotions

The Oak Ridge Gaseous Diffusion Plant has recently promoted five employees. Delbert Bivens has been named a draftsman in Engineering; Henry H. King has been promoted to a supervisor trainee in Operations; James D. Stewart an accounting analyst in Central Accounting; Fred A. Wright a supervisor trainee in Fabrication and Maintenance; and Lavere C. Wrights a supervisor trainee in Operations.

Delbert Bivens joined Union Carbide Corporation in January of 1953, after working with the Radio Corporation of America, Bloomington, Ind. He is a native of Citico, and was graduated from Alcoa High School and the United Television Laboratories, Louisville, Ky.

Mrs. Bivens is the former Doris Hicks, and the couple has one child, Kathy, attending Rockford School. They live at Route 3, Louisville, Tenn., where Bivens enjoys radio and television servicing, radioteletype and closed circuit TV as his chief hobbies.

Henry H. King

A native of Winchester, Ky., Henry H. King first worked at ORGDP from 1952 until 1962. He was a switchboard operator for the Tennessee Valley Authority for five years, returning to ORGDP in 1967.

The Kings live at 209 North Purdue Avenue, Oak Ridge. They have two children, Henry H., II, attending Brevard Junior College; and Sharon Kay, attending Jefferson Junior High.

King enjoys hunting, fishing, boating, and golfing in his spare time.

Lavere C. Wrights

Born in Pulaski, Va., Lavere C. Wrights grew up in East Berlin, Pa. A veteran of the U.S. Air Force, he has been at ORGDP for more than 26 years.

The Wrights live at Route 3, Loudon. Mrs. Wrights is the former Nealie Roseberry. They have three children, Patricia A. Miller, Dandy C., and Inga O'Neill.

Lavere C. Wrights He lists golfing, fishing and "Saturday" farming as his chief hobbies.

James D. Stewart

A native of Oakdale, James D. Stewart came with Union Carbide early in 1971. He attended The University of Tennessee, served four years in the Marine Corps, and worked with International Harvester, Louisville, Ky., before coming to ORGDP.

Mrs. Stewart is the former Karleen Lehmann. They live at Route 1, Oakdale, with their three children, James Kerry, Rachel and Christopher.

Fred A. Wright

Born in Clinton, Fred A. Wright worked with the Ford Motor Company, Hapeville, Ga., and for his father at the Arthur Wright Lumber Company, Clinton, before joining ORGDP in 1971. He is also a veteran of the U.S. Army.

The Wrights live at Route 4, Clinton. Mrs. Wright is the former Joyce Bradshaw, and the couple have two children, Kim and Lisa.

Wright enjoys hunting and fishing in his spare time.

Beware the Top

"Remember," the mother whale instructed the baby whale, "it's only when you get to the top and start blowing off steam that people begin throwing harpoons at you."



Delbert Bivens 72 523

Henry H. King 72 454



James D. Stewart 72 453

Fred A. Wright 72 446



Schreyer 134346

Fish 100291

Nuclear division ties seen at Apollo launch

Three Nuclear Division employees got a first-hand picture of activities during the Apollo-16 lunar mission, which lifted off April 16.

Two of the men were at Mission Control Headquarters at the Manned Spaceflight Center in Houston. They were Robert Williams, the original NASA project director in Y-12, and James M. Schreyer, who supervises the personnel and facilities used in the preflight cleaning of Apollo sampling equipment.

Birney R. Fish, of the Health Physics Division, Oak Ridge National Laboratory, saw the launch at the Kennedy Space Center, where he was invited to inspect the Radiological Control Center and tour the launch complex and associated facilities.

The mission also had additional Oak Ridge flavor. A new type of sample equipment, the protective sample bag designed by Y-12 and ORNL personnel and knitted by several Oak Ridge women, made its initial appearance on the Apollo flight.

The bag is about eight inches square, two and one-fourth inches thick and is composed of teflon knitted to form a protective pad. It is designed to protect a lunar rock from surface abrasion during the return trip to earth.

Other Oak Ridge-developed items that were taken on the flight included two moonboxes, six sample collection bags, seven 20-bag dispensers, an organic sampler, environmental sample container and core sample vacuum container.

SYNTHETIC HUMAN BLOOD?

The possibility of making synthetic human blood from fluorocarbon emulsions and high molecular weight polyols is being studied by the Harvard School of Public Health. Financed by a three-year grant from the John A. Hartford Foundation, the study will look into replacement of red cells and plasma by synthetic red cells. Results so far indicate that the substance is non-toxic and capable of fulfilling blood's biological functions.

KET beams education materials to Paducah

Kentucky Educational Television production technicians are doing extensive videotaping of lawmaking activities in the General Assembly at the State Capitol in Frankfort for future broadcasting on the Kentucky Educational Television Network.

Plans are that a two-part documentary on legislative processes centered around newly elected Governor Wendell Ford's presentation of his state budget, its passage through both house and senate, and the final signing into law.

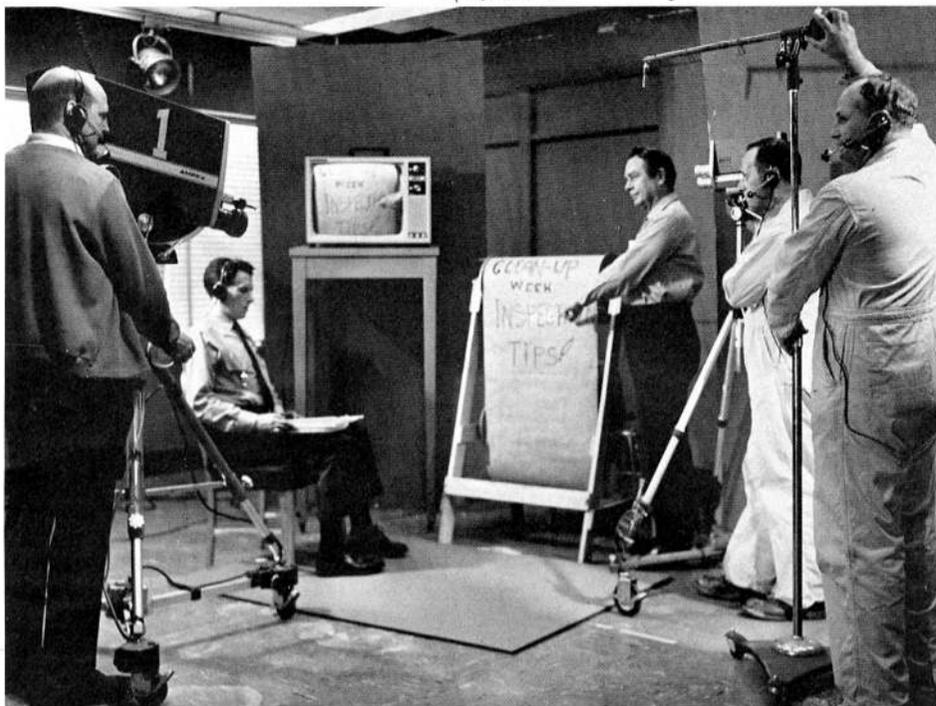
O. L. Press, KET's executive director, explained that after extensive editing, two tapes would be produced—one on the education level of schools, and another for producing on the evening schedule for adult viewing.

KET, established in 1967 through legislative action, represents the people's effort to provide standardized, expert instruction to school children, and continuing education and information for adults on all levels over this newest of media. The network consists of 14 transmitters broadcasting on separate UHF channels that provide coverage statewide, and even extends over into neighboring states. Channel 21 provides service for the Paducah area.

Paducah Plant personnel have been interested and involved in the development of the KET's program for school and adult education from its inception. Robert A. Winkel has provided leadership for industrial application as chairman of the board of directors of the Kentucky Training and Development Foundation, and I act as liaison man between the board of directors and its executive arm, the Kentucky Television Advisory Council.

This organization has been instrumental in the broadcasting of continuing educational programs during the evening hours for the employees of industry, government and business.

Examples of such programs include, "Communications," "Put it in Writing," "Management by Objectives," "Motivation and Productivity," and the preparatory study for the G.E.D. test which could provide the 750,000 adults in Kentucky that never finished high school the equivalent of a high school diploma.



CLEAN-UP ACTIVITIES—Industrial Relations folks at Paducah gear up for a video tape session, showing other folks in the plant how to inspect for Clean-Up Week. From left are Allen W. Russell, Willard Curnel, John W. Hornsby, Jackie McCaw and Jack G. Scott.

Clean-up week activities emphasize removal of fire-causing trash, debris

Ever notice all the news items beginning "Fire broke out . . ." and continuing "Losses are estimated at . . .?"

Spring Clean-Up Week, which is designed to prevent just such news items, will be observed at ORNL May 8-14. Brochures encouraging inspection of work areas have been distributed throughout the Laboratory and staff members will be doing just that by checking work areas for all possible fire hazards which may have been overlooked during the winter months.

Laboratory Protection Division has made extensive efforts to eliminate common fire hazards which are responsible for approximately 90 percent of all fires, and Spring Clean-Up Week is the time to insure Laboratory safety by good housekeeping.

Blocked fire doors, stored painting materials, stacks of paper, scrap lumber, temporary heating and lighting, and careless storage of old records may cause fires.

Special pick-up crews will be available to assist with the disposal of waste materials during Clean-Up Week. A call

to 3-6353 will bring these crews to your area or building.

Employees are urged to complete and return the last page of the brochure to be distributed during Clean-Up Week. Look around lab areas. Determine if any of the paper, cardboard, glassware, old batteries or unused equipment could be returned to the recycling program.

ORNL's Fire Department will be assisted by Laboratory inspection committees and special attention will be given to offices, locker rooms, lockers, workshops and tool rooms, boiler rooms, laboratories, exits and stairways, attics, basements, loading platforms and docks, file cabinets and closets.

Each employee should place emphasis on proper disposal of combustible materials and safe ways of extinguishing cigarettes and cigars.

A motion picture, "Fire — Not in My House," has been selected for extensive showings during the week. It will be shown at 9 a.m. each day May 8-12 in 4500-N's Central Auditorium. It will be shown at 10 a.m., 1 p.m. and 3 p.m. in the auditorium of 2518, May 8-12.

Special arrangements may be made for unscheduled showings of the film at other Laboratory locations.

AARP plans summer visits for June 17 - 22

The Oak Ridge Chapter of the American Association of Retired Persons is planning an interesting trip June 17-22. They will visit Williamsburg, Va., Charlottesville, Va. (Monticello, Thomas Jefferson's home), the Wright Brothers Museum at Kittyhawk, Charlotte and Asheville, N.C.

In Williamsburg (two nights) the group will see Paul Green's "Common Glory," and at Nags Head, N.C., they will see "The Lost Colony." In Asheville, they will tour the famous Biltmore mansion.

Cost of the six-day five-night tour will be \$140 for a single room, \$120 for a twin-bed room. The cost includes all transportation, lodging and tickets for attractions. Food is not included.

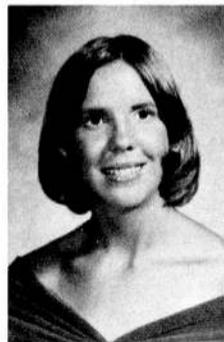
Reservations must be made by May 10 . . . and a \$15 deposit is required at the time of reservations. Reservations and tour details may be obtained through Mrs. Winifred Wilder, Oak Ridge telephone 483-0521.

Conlin daughter leads KHS with high honors

Mary Conlin, daughter of John A. Conlin of ORNL's Reactor Division, is the 1972 valedictorian of Karns High School. Along with her other honors comes the distinction of completing high school in three years.

She is editor of the school yearbook, a member of the National Honor Society, the band, the basketball team and the track team. She was named outstanding girl athlete.

In September Miss Conlin plans to enter The University of Tennessee.



Mary Conlin

Paducah's J. White leads retirement parade along with many other vets

A well-known Carbide employee takes retirement next week, as Joe White, personnel administrator at the Paducah Gaseous Diffusion Plant, leaves.

Labor recruiter, recreation director, personnel man, editor, raconteur, bon vivant, all of these aptly describe the transplanted Paducahan. A native of McMinnville, Tenn., White came with Tennessee Eastman Company back in the old days in Y-12, December 27, 1943. He was one of the first Carbiders to transfer to Paducah . . . going to western Kentucky February 1, 1951. They tell the story he was in the vanguard of "troops" and actually commuted to Paducah from Oak Ridge until his family got settled there.

Never at a loss for the RIGHT word, or a joke to fit any occasion, White once slept in his car several hours only minutes away from Paducah and his warm bed because he was lost and didn't know how close home he actually was.

It goes without saying that White has converted more Yankees to cornbread, biscuits, turn'p greens and the like than most of us put together. It will be a long while before his likes are seen again!

White will continue to live in Conrad Heights, where he and Louise will be close to their grandchildren. They have a married daughter in Paducah, and their only son plays in the Dallas Symphony Orchestra.

Stories about the amiable Carbider are endless. It goes without saying he will be missed. All Paducah employees and friends in the other plants wish him the very best of life in retirement.

Four long-time employees of ORGDP retired April 1, as Charles D. Watkins, Physical Measurements Laboratory; Carl A. Clapie, Electrical; Tommy G. Dry, Maintenance; and Oscar P. Copeland, Chemical Operations; retire.



Morton

Smith

Retiring from ORGDP May 1, are two long-time employees . . . Gordon A. Smith, Engineering; and Thurston W. Morton, Shift Superintendents.

Morton, a native of West Virginia, came with Union Carbide back in 1933. He came to Oak Ridge when the gaseous diffusion plant here first opened. He enjoys fishing and hunting.

The Mortons live at Route 3, Laurel Road, Clinton.

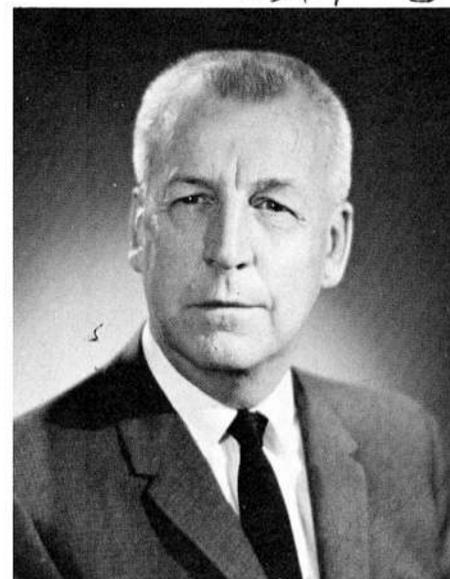
Even further back in history goes Gordon A. Smith, who came with the National Carbon Company in Cleveland, Ohio, in September of 1928.

He retires with more than 43 years company service!

The ORGDP engineer is a graduate of Case Institute of Technology, and has studied business law at UT.

The Smiths live at 432 Oran Zirkle Road, Kingston.

Lots of "rest" is Smith's retirement plan at the present, as the retiring veteran probably sets a record among current "old-timers" for company service.



Joe White

Other May 1 retirees at ORGDP include Paul F. Haile, Operations; James C. Bunch, Fabrication and Maintenance; and Frederick W. Kopplin, Engineering.

Two employees of Plant and Equipment at ORNL will be retiring. Milbern F. Curtis and Hume J. Uselton will retire April 28.

Five long-time Y-12 employees retire also at the end of April. They are Roy R. Chilcoat, Buildings and Grounds; William L. Coggins, Salvage; Edgar Collier, General Expediting and Auxiliary Services; Chester L. Estes, Metallurgical Development; and George B. Lockhart, Product Engineering.

Paducah retirees include William M. Kirk, Electrical Motor Shop foreman; and Donald S. Muir, of the Plant Engineering Division.

Biology researcher's paper earns plaudits

At the recent meeting of the Southern Section of the American Society of Plant Physiologists in Mobile, Ala., Paula J. Thompson won an award for a paper she presented.

Miss Thompson, a doctoral student in the Botany Department of The University of Tennessee who is doing her research in ORNL's Biology Division, won the award for her paper, "DNA Synthesis and Phototransformation of Etioplasts into Chloroplasts." The paper was coauthored by Alan H. Haber of UT and Biology Division and Larry L. Triplett.

Miss Thompson expects to finish her graduate work this summer and has accepted a position as Assistant Professor of Biology at Upsala College, East Orange, N. J. She is a former student trainee in the Biology Division.

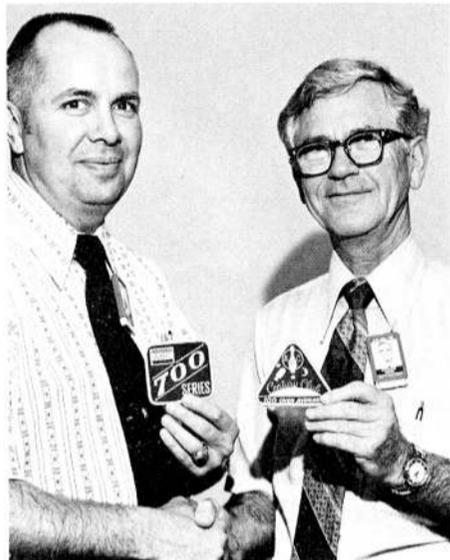
Junior play April 27

The Oak Ridge Junior Playhouse will present a children's play "Absolutely Time" on Thursday, April 27 at 7 p.m. at the Robertsville Junior High School. All ages are invited to come see what happens when King Glumpis of the Gloomy kingdom decrees that it is "absolutely time" for the princess to be married.

Tickets are available from the Jackson Square Pharmacy, Overton's Drug Store and at the door before the performance.



SPORTS NOTES



BOWLING KUDOS—Sewell Brown, left receives a "700" patch and a Century Club patch from Rudy Pletz, secretary of the Classic Bowling League. The Y-12er made history recently on the Classic alleys. (See item below).

Y-12 BOWLING

The Has Beens may be near the cellar of the Classic League as the season draws to a close, but Sewell Brown recently bowled them to heights of their remembered past glories. On March 23, Brown rolled a 278 game, only 22 pins shy of the magic perfect game! His 707 scratch series will give him two American Bowling Congress patches, one for a 700 plus series, and the other for posting a game more than a hundred pins over his average.

The big Badgers took the first and second half of the C Bowling League, winning hands down. They finished the second half three out in front of the Rollmasters. The team consists of Dick Huber, captain; Hugh Richards, Jim Thompson, Don Parker, Trig Myhre, Jim Hummel, and Bill Hackett. The Rollmasters and Sunflowers (who won second place in the first half) rolled off this week for second place honors.

The Rollers rolled their way to victory last week over the Cougars in the Mixed League roll-off for Y-12ers. The Rollers took game one by 39 pins, lost game two by 30, then returned and took game three (and total pins) big by a



WINNING PACK — The Pack recently nailed down victory in the Carbide Volleyball League for the 1972 season. In the front row, from left, are Steve Kaye, Dick Woods and Bill Appleton. Seated in back are Paul Rohwer, Bob Minturn and Trygve Myhre. The Hawks defeated the Pack in the recent volleyball tournament.

margin of 70 pins. The final score, 2229 pins to 2150 pins.

Meanwhile, the Classic League winds up action this week with the Eightballs and Splinters rolling off tonight. The Eightballs won the second half, the Splinters the first.

ALL CARBIDE

John Butler and Jerry Goldstein are tied for the top spot in the Y Table Tennis League. They've won 12 matches, lost none. Loyd Watt quickly grabbed the lead in the X League, with 15 wins, three losses. Herb Mook comes in view in second place with 14 wins, four losses.

Oops team rolled high team series last week to maintain their lead in team standings; however, the Pinsetters are challenging. Bowlers from several other teams cornered honors: Ray King of Lo Balls and Frank Adams of Pinsetters tied in the high handicap series with 612s. Ann Carpenter of 4 C's had a 598. High handicap games went to Charlie Thompson of Tears and Beers with a 237 and Arneha Johnson of Lo Balls with a 212. Scratch game honors went to Charlie Thompson with a 209 and Tillie Plaza of Oops with a 176.

ORGRP BOWLING

Chalk up Elaine Griffies as Women's League Bowler of the Week. She rolled high scratch game of 200, high scratch series of 545, high handicap series of 608 and tied for high handicap game of 221 with Mary Foley and Eva Elmore. The Uptowners scored high team handicap series with a 2277. Pay-Offs have a comfortable lead in league competition.

The Pirates are way out front in the Wednesday League. In April 5 play the Demons rolled high handicap series with a 3074. Individual honors went to James Boyd who had a 280 handicap game and a 641 handicap series.

ORNL BOWLING

The Pee Wees have put four points between themselves and the second high Ten Pins. The Pour-It-Ons are close if they would live up to their name. Half Frames rolled a 2958 for high handicap series. Individual achievers were Wayne Paul of Ten Pins with a 658 handicap series, Tom Kitchings of Good Guys with a 239 handicap game and Billy Tye of Pee Wees with a 213 scratch game.

Remkeys are pacing the C League pack with a three point lead. The Knuckleheads rolled high handicap series with 2961. B. G. Bowers of Alley Rads and M. D. Danford of Knuckleheads tied for high handicap series with 652. J. W. Starcken of Barracudas led the rest with a 267 handicap game and R. A. Vandermeer of Beryls scored a 217 for high scratch game.

Competition is hot in E League. Only four points separate the top five teams. DoDads lead followed closely by Guttersnipes, Mets, Woodchoppers and Limits. Limits showed some of their stuff last week. The team rolled high handicap series with 2852. Cagle turned in a 630 high handicap series and Montgomery scorched the lanes with a 236 scratch game. Stone of DoDads scored a 269 handicap game.

HP-ettes of Ladies League lead the league, but they are being pursued by the Mousechasers who are a scant second behind and tied with the Pick-Ups. The Mousechasers holed up almost all the honors. They rolled a 2317 handicap series.



Denise Medved to vie in beauty competition

Denise Medved, daughter of Martin Medved, ORGRP Engineering Division, was recently crowned Miss Tennessee Wesleyan in the third annual pageant at the Athens campus.

A 1970 graduate of Powell High School, Denise will represent Wesleyan in the Miss Tennessee contest later this year.

A speech-theater major, Denise performed an original reading and played the piano for the talent competition. A cheerleader at Wesleyan, she is a member of the homecoming court and serves TWC as an Ambassador. She was also recently chosen as a Little Sister to Sigma Phi Epsilon.

The Medveds live at Heiskell.

Citizenship top award to ORNLer's daughter

Doris Brewster, daughter of Edward Brewster of ORNL's Operations Division, has been awarded the Daughters of the American Revolution's Good Citizenship Award. She is a senior at Sweetwater High School and the first black in Monroe County to receive this award.

The award is based on honor, service, courage, leadership and patriotism.

Miss Brewster will attend Hiwassee College in September and plans to become a home economics teacher.

PADUCAH GOLF

A Mixed Scrabble golf match is set for Paducahans Saturday, May 13, at the Ballard County Country Club. The shotgun start will be early, Recreation says. Just give them a ring on PAX 335, or Bell 368, and they'll put you on schedule.

FISHING RODEO

C Shift-men and women in Y-12 are planning a Crappie-Bass Fishing Rodeo Saturday, April 22. The hours are from 6 a.m. to 5 p.m. Only crappie, smallmouth and largemouth bass will be in the competition. All Y-12ers (somebody bring a badge) and their families are welcome. The scene: Bayside Dock, on Watts Bar Lake.

ORNL staffers speak at worldwide meetings

ORNL staff members spoke at many gatherings throughout the world during the first half of April.

Those traveling abroad to speak included Joan Hett who spoke on "Land-Use Change and Forest Succession Models" at the U.S.-Taiwan Science Agreement Symposium on Forestry and Forest Genetics, March 26-April 8 in Taiwan.

J. C. White presented a seminar, "Activation Analysis Program with the HFIR," to the International Symposium on Radiochemical Aspects of Trace Analysis in Kyoto, Japan, April 5.

Myron T. Kelley spoke to the IUPAC International Congress on Analytical Chemistry on "The ORNL Parallel-Analysis System—Features and Performance Characteristics." This paper was co-authored by Wilbur D. Shults of ORNL, R. L. Coleman of Boston City Hospital and J. A. Dean of UT. He also presented a seminar at Horiba, Ltd. in Kyoto on April 6.

James C. Bresee spoke to the First International Symposium on Jet Cutting Technology in Coventry, England, April 4-7 on "Some Comparisons of Continuous and Pulsed Jets for Excavation." The paper was also coauthored by George A. Cristy and William C. McClain.

Speaking to the IAEA Symposium of Nuclear Activation Techniques in the Life Sciences in Bled, Yugoslavia, April 10-15 was William S. Lyon. His paper, "Environmental Pollution: Use of Neutron Activation Analysis to Determine the Fate of Trace Elements from Fossil Fuel Combustion in the Ecological Cycle," was coauthored by Lamont C. Bate and Juel F. Emery.

Staff speakers visit several college sites

Traveling to college campuses to present seminars this month are Jerry Braunstein of ORNL's Reactor Chemistry Division and Gayle S. Painter and George M. Stocks of ORNL's Metals and Ceramics Division.

Braunstein will address the Chemistry Department of Georgia Institute of Technology on April 20. He will speak on "Ionic Solution Chemistry: Bridging the Gap from Dilute Solutions to Molten Salts."

Painter described his new technique from calculating the electronic states in ordered crystalline solids at Louisiana State University on April 11.

Stocks traveled to the Physics Department at the University of Maryland on April 17 to discuss his recent calculations of the electronic states in random alloys.

All-state singers take highest honors in meet

Three members of the Oak Ridge High School chorus have been selected as winners in the All-State Chorus competition held recently in Knoxville.

Based on a high point system, Adele Oliphant was named All-State soprano, Carrie Hibbs, All-State alto and Kenny Rains, All-State tenor.

Adele is the daughter of Hubert Oliphant, ORNL's General Engineering Division, Carrie is the daughter of Nuclear Division President Roger F. Hibbs, and Kenny is the son of Charles C. Rains of ORNL's Plant and Equipment Division.

View from young drug users

By T. A. Lincoln, M.D.

Many parents cannot understand why their children are attracted to drugs. Most of the explanations thus far presented have been written by sociologists, psychologists, and psychiatrists. What has long been needed is a clearly written and intelligent answer from a person from the drug culture. Harrison Pope, Jr., in his short book, **Voices from the Drug Culture**, published by the Sanctuary, Cambridge, Mass. (1971) fulfills this need in a quiet and convincing manner.

Pope, as a student at Harvard, became interested in the hippies in 1967 and visited the Haight-Ashbury district in San Francisco. Later he spent long periods of time in Boston and New York living with and learning about the drug culture. He gained their confidence and sat with them during many "trips." Although he was careful not to describe his own experiences, he says he "was as much a participant as an observer."

Originally submitted as a college thesis in 1969, his advisors urged him to revise the material for a nontechnical book. His personal warmth and empathy with drug users should not alienate parents. He does not defend the culture, he merely tries to understand it. Parents would do well to attempt the same. They will squirm when they realize their hypocrisy and the role they have played in creating the drug culture. He reminds parents that the "older generation gets the younger generation it deserves."

Myths Exploded

Pope quickly explodes some cherished myths. Parents sometimes assume that young people resort to drugs only because of peer pressure or because they are "mixed up." Most drug experimentation or use is for fun. "Drug use, like driving sports cars, may of course reflect more subtle unconscious 'psychological' needs, but its primary attraction is fun." The fact that it may be dangerous and illegal makes it all the more attractive. Young people are not the least impressed by all the "scare" talk. They may hear of bad trips and occasional "busts," but most of what they hear is exciting and favorable.

Drugs are not necessarily taken to "cope" with the environment. They may provide an attractive withdrawal from responsibility and the "pains" of growing up, but as often they provide an enjoyable "high" which is an experience quite different from alcohol.

Young people rebel from the idea that everything one does must be for a "purpose." Pleasure for its own sake is not wrong. A drug experience is its own justification. Why look for more?

Boredom and Rejection

Other factors which cause drug experimentation are boredom and a rejection of the apparently meaningless lives of their parents. They want what they consider as "gut level" experiences which, to them, are available with a little money, a drug source and a friend. They feel alienated. Life is dull and irrelevant. They realize they can't change society and really give up without any attempt at involvement. Their choice is to alter themselves rather than trying to alter the world. They substitute a

drug-induced fantasy for reality. Some young people use drugs to break away from dominating, over-protective parents. Some withdraw from sexual responsibility. Some derive an intimacy in mutual drug experiences which is almost a substitute for sex, whether homo- or heterosexual.

Parents express shock at their son or daughter smoking dope (marijuana) yet they, themselves, need several drinks before a meal, before going to bed, or at any social occasion. Mothers particularly reach for tranquilizers at the slightest stress. Alcohol in excess is far more dangerous than marijuana in excess. Tobacco is physically more hazardous, at least from what is known now. The excessive users of marijuana may experience psychological deterioration and may graduate to more hazardous drugs, but the reasons they do are more related to their desire to experiment or their emotional conflicts than the drug itself. The same cannot be said for certain other drugs, but even so, only about 5 percent of drug users become addicted and end in tragedies. About the same percentage of teenagers who experiment with alcohol eventually become severe alcoholics as adults.

Something Better?

Pope concludes, "Drugs may represent a release from shelter, a test of competence, an expression of anger, and very often, a step away from loneliness. Many parents, acting with genuine love and an attempt at understanding, are unintentionally encouraging drug use in their children by denying them other ways to grow up.

"Many intelligent adults, despite serious concern, have not learned to distinguish between vastly different forms of drug use. They exaggerate the evils of some drugs and deny those of others: a marijuana cigarette constitutes 'drug abuse', three martinis do not. However innocent their ignorance they forfeit the respect of their children in this way. Those who extend their criticisms of drug use to the point of great anger, whatever their reasons, may only stimulate what they are striving to suppress."

If you were to ask most young people why they use drugs, they would answer, "Why not? Show me something better."

Schuiten son's Asian duty earns Silver Star

Major Clyde Lee Schuiten (USAF), son of Willie Clyde Schuiten of ORNL's Operations Division, has been awarded the Silver Star.

He was on duty with the 16th Special Operations Squadron of the Seventh Army in Southeast Asia when distinguishing himself for this award. As an AC-130 Gunship Infrared Sensor Operator, he tracked and held targets for an attack which resulted in over 36 supply vehicles being damaged or destroyed.

Also while in Southeast Asia he won the Distinguished Flying Cross and the Air Medal.

Presently Major Schuiten is stationed at Wright Patterson Air Force Base in Ohio where he is completing requirements for an M.S. degree.



Schuiten



AFFIRMATIVE ACTION COORDINATORS—Meet Bob Kernohan, left, affirmative action coordinator for ORNL during 1972, and Earl Nash, assistant affirmative action coordinator for the Laboratory. Their appointments are intended to help the Laboratory's staff deal directly and effectively with equal employment opportunity questions, particularly as they relate to minority groups and to women.

Proclamation

Proclamation by the Governor.

• **Whereas**, the efficient functioning of modern society is largely dependent upon effective communication, and the modern methods of communication have come more and more to rest in the hands of our office secretaries; and

• **Whereas**, the increasing amount of communications inherent in our complex society has made it necessary for today's secretary not only to acquire technical skills for the use of office machines and the taking of dictation, but to assume the responsibility for countless details in the operation of a business; and

• **Whereas**, today's secretary must have at her command tact, diplomacy and many other attributes so necessary to the increasing role she plays in good public relations for her employer; and

• **Whereas**, the important contribution made by secretaries in the economic and governmental life of our country has been recognized by establishing the last week in April as Secretaries Week:

NOW, THEREFORE, I, Winfield Dunn, as Governor of the State of Tennessee do hereby proclaim the week as April 23-29, 1972, as

SECRETARIES WEEK

And I urge all citizens to recognize and pay tribute to the efforts made by our secretaries who have truly become silent partners in American business."

Popular drink

An "atomic cocktail" is a colorless, odorless, tasteless mixture of water and Iodine-131, a radioactive isotope used to diagnose and treat thyroid disorders. Iodine-131 and similar radioisotopes developed by the Atomic Energy Commission are used over eight million times each year in hospitals across the nation.



PROCLAMATION—Governor Winfield Dunn signs a proclamation designating the week of April 23-29 as "Secretaries' Week." Jo Acres, secretary of the Technical Division at ORGDP, accepts the governor's best wishes at Tennessee's State Capitol.

Y-12ers' daughter gets Rainbow Girls honors

Donna Beeler, daughter of Y-12ers William D., Maintenance; and Dorothy, Utilities, was recently installed as

worthy advisor of the Beaver Ridge Assembly No. 70 Rainbow for Girls. A junior at Karns High School, Donna is a member of the Honor Society, the flag corps of the high school band, the Science Club, the track team, and participates in other intramural sports.

The Beelers, who have two other children, reside at Route 3, Yarnell Road, Concord.



Donna Beeler

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CALENDAR of EVENTS

TECHNICAL April 21

Solid State Division Seminar: "Raman Scattering and Infrared Studies of Layered Compounds," Larry Verble, Naval Research Laboratory. Conference Room, Building 3025, ORNL, 10 a.m.

April 21-22

Second Symposium on the Sharing of Computer Programs and Technology in Nuclear Medicine: East Auditorium, Building 4500N, 9 a.m. to 4:30 p.m.

April 25

Analytical Section, East Tennessee Section of the ACS Meeting: University of Tennessee Air Pollution Mobile Laboratory," (a lecture demonstration), J. R. Duncan, Knox County Air Pollution Department. Oak Ridge Civic Auditorium, 7:30 p.m.

Special Seminar: "Extreme Ultraviolet Absorption by Highly Ionized Atoms and Study of the Process Controlling the Excited States Population," Pierre Jaegle, Laboratoire de Chimie Physique de la Faculte des Sciences d'Orsay, France. East Auditorium, Building 4500N, 3 p.m.

April 25-26

Heavy Section Steel Technology Program Information Meeting: Oak Ridge National Laboratory.

April 26

Chemical Technology Division Seminar: "Defining Molecular Pollutants in Water," W. W. Pitt and R. L. Jolley. East Auditorium, Building 4500N, 3 p.m.

Biology Division Seminar: "Defective DNA Replication in Ultraviolet Light Irradiated Bacteria," Ruth Ben-Ishai, Harvard University. First Floor Tower Annex Conference Room, Building 9207, 3:30 p.m.

May 1-3

Solid State Division Information Meeting: Oak Ridge National Laboratory.

May 4

Nuclear Safety Program Seminar: "Nuclear Safety Within the European Communities," William Vinck, Director-

General for Industrial, Technological, and Scientific Affairs Commission of the European Communities. East Auditorium, Building 4500N, 9:15 a.m.

May 8-11

Immunology of Carcinogenesis Conference: Riverside Motor Lodge, Gatlinburg.

PADUCAH April 28

Paducah Plant's spring dance featuring FLIGHT 602. "Flower Frolic" has been chosen as the theme and advance tickets are on sale at \$1.75 per person. (Tickets at the door, \$2 per person.) Paducah Civic Center.

COMMUNITY April 21

Oak Ridge Playhouse presents "Little Murders" (comedy). Oak Ridge Playhouse, 8:20 p.m. Admission: Adults \$2.50; students \$1.25 (Friday only). Other performances April 22, 28, and 29.

April 22-23

"Springtime in Oak Ridge," presented by Melton Hill Council of Garden Clubs. Shep Lauter Room, Civic Center. Free.

April 22

"African Craftsmen in America." Demonstration of Nigerian Pottery Techniques, Oak Ridge Civic Center, Rooms A and B, 10 a.m. to 12 noon. Free. Scarborough Community Action Center, 4 to 6 p.m. Free.

April 23

Art Center Film Club Special. An evening of short films, Jefferson Junior High School, 8 p.m. Nonmembers \$1.

April 27

Oak Ridge Junior Playhouse presents a touring musical, "Absolutely Time." Robertsville Junior High School, 7 p.m. Admission \$1.

May 9

Carbide Camera Club Monthly Meeting: "Picture Composition and Selected Aspects of Photojournalism," Stanley Cole, The University of Tennessee. Social Room, Oak Ridge Civic Center, 7:30 p.m.



WHEN WILL HE FALL?—The "dummy" on the ladder is at the entrance to the Paducah Plant. Just exactly when he will fall is the big question around the plant. Everyone is eligible to vote for a time. Guesses to the nearest time (three of them) will receive \$15 gift certificates to a popular downtown eating establishment.



Y-12 PLANT

RIDE from Viking Road, near Downtown Shopping Center, Oak Ridge, to East Portal, straight day. Sara Coram, plant phone 3-5226, home phone Oak Ridge 483-7534.

CAR POOL MEMBER from Maynardville or Halls area, to any portal at Y-12, straight day. Ray Oxendine, plant phone 3-5362, home phone Maynardville 992-8652, or Bob Weaver, Halls 922-2055.

ORGDP

RIDE OR WILL JOIN car pool from West Hills, Bearden area, Knoxville, to ORGDP, preferably Portal Two, straight day. Ed Dixon, plant phone 3-9651, home phone Knoxville 588-8257.

PADUCAH

WILL JOIN car pool from vicinity of River Oaks subdivision, straight day. Billy Stokes, PAX 678.

ORNL

RIDE from Garden Apartments to East Portal of ORNL, 8:15 a.m. W. O. Greever, 3-6549 or 483-3900.

RIDE from the UT area to East Portal of ORNL. Vicki Barry, 3-1353.

Question box

(Continued from Page 1)

made through the Recreation Department, 4500-N, Extension 3-6723.

The swimming area does not open until early June when lifeguards will be available. Swimming is not allowed in the unpatrolled areas. Camping, picnicking, canoe launching, boat launching, hiking, and many other forms of recreation are available to the employees at the park.

ALL-CARBIDE SOFTBALL

Recreation announces Friday, April 28, as the deadline for filing entries in the Softball League for play this summer. Play will begin May 8 at the Clark Center Recreation Park. Teams may be entered at any of the three Oak Ridge plant Recreation Departments.

Health physics studies conference set April 28

Oak Ridge National Laboratory and the East Tennessee Chapter of the Health Physics Society will sponsor a Health Physics Conference on Radiation Standards and Regulations, April 28. The afternoon sessions will be held at Oak Ridge Playhouse and the evening sessions at the Oak Ridge Country Club.

Attending are approximately 200 of the leading experts in the field of health physics who are associated with the establishment of radiation protection standards, regulatory functions and the implementation of health physics programs.

C. Gordon Stewart, Director of the Medical Division of Chalk River Nuclear Laboratories and chairman of the International Commission on Radiological Protection, will speak on Radiation Protection Standards; Frederick P. Cowan of Brookhaven National Laboratory on Units and Measurements; Arthur C. Upton, Dean of School of Basic Health Sciences at the State University of New York at Stony Brook, on Biological Effects; and Alvin M. Weinberg, ORNL Director, on the Long-Range View of Nuclear Energy. Session moderators are Lauriston S. Taylor, president of the National Council on Radiation Protection and Measurements and former head of the Radiological Section of the National Bureau of Standards; and Herbert M. Parker, former manager of Hanford Laboratories and president of HMP Associates specializing in health and medical physics consultation activities. The afternoon session will close with a panel discussion concerning Regulations and Administrative Rules in Perspective.

The evening session will be in the form of a tribute to K. Z. Morgan who will be retiring during the year from ORNL where he has directed the development of health physics at ORNL and achieved world-wide recognition for his work in physics and health physics. He is president emeritus of the International Radiation Protection Association, an organization which he helped found, and served as its first president.

Persons wishing to attend the sessions should contact Paul S. Rohwer, ext. 3-1368.