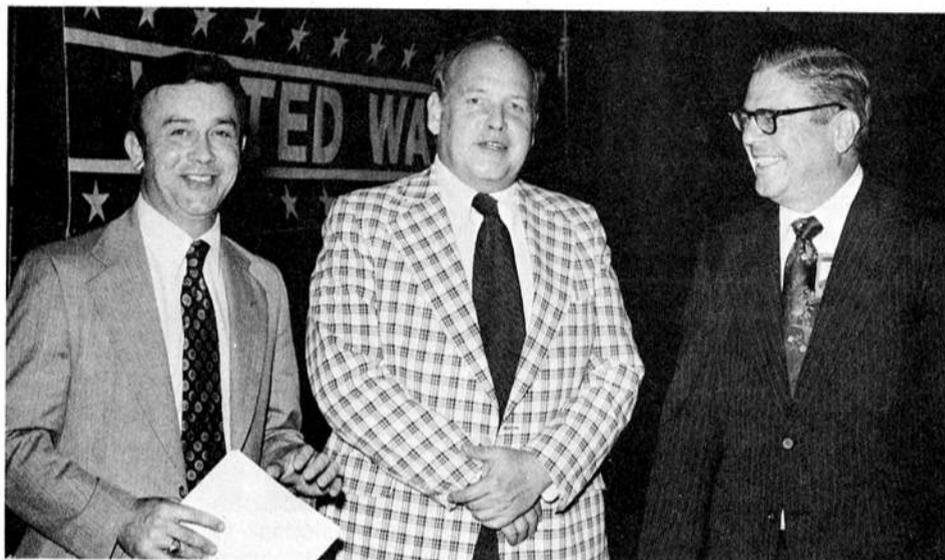


Nuclear Division News



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

Vol. 7 No. 21/October 14, 1976



Chatting at the "kickoff" meeting (from left): W. Ron Ragland, United Way chairman for the Nuclear Division's Oak Ridge facilities; Fred W. Isaacs, Knoxville businessman and civic leader who was guest speaker at the kickoff; and Nuclear Division President Roger F. Hibbs.

92 percent of goal achieved after two weeks' campaigning

Less than two weeks after the Nuclear Division's United Way drive began, employees at the Oak Ridge Gaseous Diffusion Plant had achieved 105 percent of their goal. John Nicol, United Way Chairman for ORGDP, attributed the feat to the hard work of solicitors and other campaign workers, and the genuine concern of employees for their fellow man.

ORGDP is leading the Oak Ridge plants, with approximately \$184,000 already pledged or contributed. The established goal for the plant was \$175,000.

Ninety-two percent of the \$150,000 goal for Y-12 Plant employees has been attained, and Oak Ridge

National Laboratory employees already have 81 percent of their goal.

The Paducah Gaseous Diffusion Plant's drive is also still underway. The results will be reported in a future issue of **Nuclear Division News**.

500 attend kickoff

Approximately 500 solicitors, general campaign workers and other staff members from the three Oak Ridge plants attended the official kickoff meeting, held at the Oak Ridge Civic Center, September 27. Roger F. Hibbs, Nuclear Division President, congratulated employees on the tremendous effort last year that resulted in contributions which exceeded the goal by seven percent, and encouraged them to make this an even better year.

Photos of United Way kickoff meeting are on page 4.

Employees in ORGDP's Custodial Department decided to go all out for United Way: they have achieved 183 per cent of their goal, and the cards are still coming in. Josephine H. Walker, general supervisor, accepts an award plaque from John Nicol, ORGDP United Way chairman, to document the outstanding contributions by department employees.



Corporate Fellows honored



Three members of the Nuclear Division staff who have been named Union Carbide Corporate Fellows recently were presented with certificates citing their achievements. The three are Arthur P. Fraas, Manager of the High Temperature Systems Group in the Energy Division, ORNL; John M. Googin, the Nuclear Division's Senior Staff Consultant in the production organization; and G. Raymond Satchler, a member of the ORNL Physics Division. From left are Fraas; Roger F. Hibbs, President of the Nuclear Division; Googin; and Satchler. Designation as a Corporate Fellow is one of the highest honors which can be bestowed on research personnel by Union Carbide Corporation.

inside . . .

A very special forest is featured in this issue: the Walker Branch Watershed, an environmental experiment being undertaken by researchers in ORNL's Environmental Services Division. Natural ecosystem balances are measured in the eight-year-old project—story begins on page three.

retirements

Three employees have retired from the Oak Ridge Gaseous Diffusion Plant.

Gordon F. Mills, development staff member in Experimental Barrier Development, has been with Union Carbide since 1949. He retires to his home at Route 1, Keller Bend Road, Concord.



Mills

Marvin P. Davis retired to his home at 419 Highland Drive, Clinton. He was an operator in Chemical Operations Administration and had been with Union Carbide since 1944.

Ernest H. Taylor, an assembly supervisor in Separation Systems, has been at ORGDP for 29 years. His home is at Route 17, Knoxville.

next issue ...

The next issue will be dated October 28. The deadline is October 20.

ASTM names Corbin to head committee

Lawrence T. Corbin, a section head in the Analytical Chemistry Division, Oak Ridge National Laboratory, was recently elected chairman of Committee C-26 on Fuel, Control and Moderator Materials for Nuclear Reactor Applications of the American Society for Testing and Materials (ASTM).



Corbin

Committee C-26 develops ASTM standards for fissionable and fertile materials and solid control and moderator materials intended for use in nuclear core components.

A native of Madisonville, Ky., Corbin received his B.S. degree in chemistry from the University of Kentucky in 1939. He began his career with Continental Motors from 1939-1943, and came to ORNL in 1946. He is also a member of the American Association for the Advancement of Science, the American Chemical Society and the American Nuclear Society.

ASTM is the world's largest source of voluntary consensus standards for materials, products, systems and services. It is headquartered in Philadelphia and has 26,000 members throughout the world.

safety scoreboard

Time worked without a lost-time accident through October 7:

Paducah	9 Days	111,000 Man-Hours
ORGDP	56 Days	1,735,000 Man-Hours
Y-12 Plant	215 Days	6,199,000 Man-Hours
ORNL	21 Days	477,414 Man-Hours

Nine promotions announced at Paducah Plant



Brummett



Crews



Garrison



Graves



Kaler



Kohler

Nine promotions have been announced at the Paducah Gaseous Diffusion Plant.

Edward S. Brummett has been named an inspector in Engineering Division. Brummett, who joined the Nuclear Division in 1974, was a maintenance mechanic before his promotion. A native of Williamsburg, Ky., he formerly worked with CTS, Inc., Paducah.

Brummett and his wife, Wanda, have three children: Forrest, Mary Elizabeth and Melanie. The Brummetts live at Route 1, Paducah.

Darrell L. Crews has been promoted to shift foreman in Chemicals, Power and Utilities Division. A chemical operator before his promotion, he came to PGDP in 1975 after working as a salesman for the Harts Bread Company.

Crews is a Paducah native. He and his wife, Tina, and son, Steven, live at Route 11, Paducah.

Danny Joe Garrison has been promoted to supervisor in Electrical Maintenance Division. A native of East St. Louis, Ill., he has been with PGDP four years, coming from Beneficial Finance Corporation. Before his promotion he worked in roads and grounds as an electrical mechanic.

Garrison and his wife, Nancy, have three children, Craig, Marcy and Matthew. The Garrisons live at Route 3, Kevil.

Paul E. Graves has been named an electrical inspector in Metallurgical Engineering and Inspection Division. An electrician before his promotion, he joined the Nuclear Division in 1952 after working as an electrician with John Bouchard and Sons, Nashville.

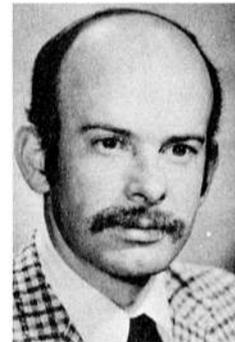
A Nashville native, Graves lives at 743 North 26th Street, Paducah, with his wife, Bettye. They have two daughters, Pamela Sue and Rebecca Lee.

David E. Kaler has been named an electrical supervisor in Fabrication and Maintenance Division. He has been with the Nuclear Division since 1971 and formerly worked with Kelly and Wilmore Company, Inc. Before his promotion, he worked at PGDP as an electrician, a printed circuit board mechanic and a chemical operator.

Kaler is a native of Mayfield, Ky. He and his wife, Diann, have two children, David Jr. and Gwendolyn. The Kalers live at 1600 North 10th Street.



Ray



Thompson



Taylor

Edward A. Kohler has been promoted to SS Accounting supervisor in Cascade Operations Division. A native of Alto Pass, Ill., he joined the Nuclear Division in 1951 and has held various positions in uranium control since then.

Kohler and his wife, Mary Anna, live at 3227 Pines Road, Paducah. They have a daughter, Mary Beth, and a son, James.

Steven L. Ray has been promoted to supervisor in Fabrication and Maintenance Division. Ray holds a B.S. degree in electrical engineering from the University of Missouri at Rolla; he joined the PGDP staff earlier this year as a supervisory trainee.

Ray is a native of Waynesville, Mo. He and his wife, Karen, live at 225B Berger Road, Paducah.

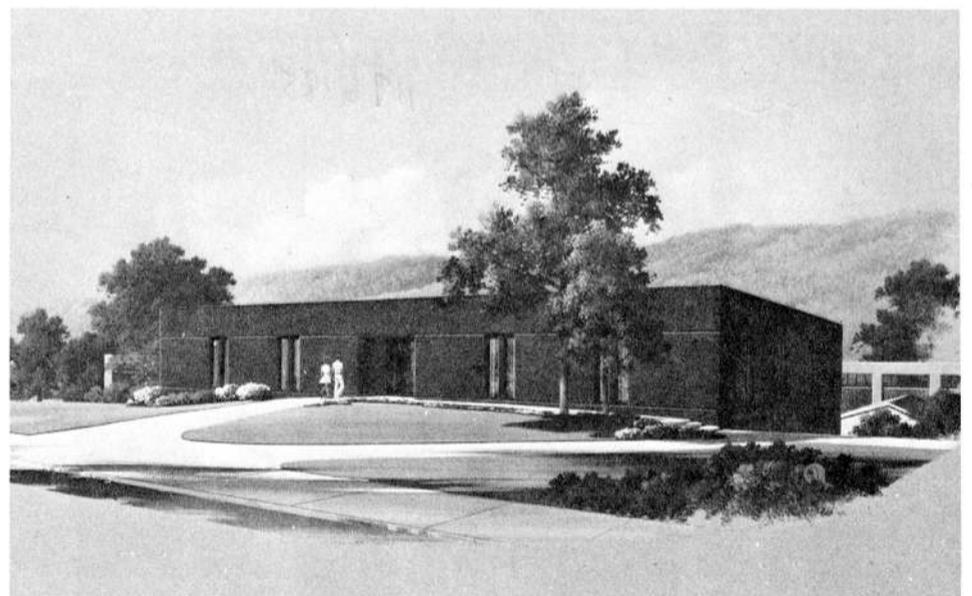
George H. Taylor has been named a senior electrical inspector in

Engineering Division. A native of Pleasant Hill, Mo., he is a 23-year Nuclear Division employee; before his promotion he worked in power operations and electrical maintenance.

Taylor and his wife, Mary Louise, live at 316 Lindsey Avenue, Metropolis, Ill. They have a son, Dennis, and a daughter, Debra.

David L. Thompson has been named a line supervisor in Fabrication and Maintenance Division. Thompson is a native of Paducah and joined the PGDP staff in 1973, where he worked as a maintenance mechanic before his promotion.

Thompson and his wife, Nancy Jo, have two children, Brent and Gary. The Thompsons live at 5641 Benton Road, Paducah.



WASTE ISOLATION FACILITY—This is an artist's concept of the new facility for the Office of Waste Isolation which will be located at the North Portal of the Oak Ridge Y-12 Plant. The building, which will cost approximately \$700,000, will have office space for 56 staff members plus two conference rooms and a map room. The building is scheduled to be completed in spring, 1977.

The Walker Branch Watershed experiment

'Forest primeval' is textbook for ORNL ecologists

by Laura Eubanks

It looks like a normal forest. It that brisk smell of a woodland. The quietness is interrupted occasionally by the debut of a katydid or the birds taking turns singing one line of a continuous song.

You think you're in a normal forest until the shining instruments and aluminum towers catch your eye. These devices are strapped to the earth, taking their patient's pulse, checking vital signs, and making note of every move that is made. No medicines will be prescribed, however, for this patient is the Walker Branch Watershed—a control experiment used for environmental research

Measures ecosystem balances

"The purpose of the Watershed study is to examine the movement and effects of atmospheric pollutants," said Frank Harris, head of the terrestrial ecology section of the Environmental Sciences Division at the Oak Ridge National Laboratory. Although not easily seen, the Watershed lies only about three miles east of the Laboratory. Operation of the project was formally begun in 1968. This area was carefully chosen because it includes representative trees and soils of the southeastern United States, and the results of studies here can be applied to the whole region in general.

Experimental watersheds, such as the Walker Branch, are the only areas where natural balances in an ecosystem can be measured. The interactions among the atmosphere, plants, animals, microorganisms, soil and bedrock are carefully studied.

Wet, dry fall monitored

According to Tom Grizzard, a research associate in Environmental Sciences Division, the experimental watershed is a closely-monitored area that provides a measure of the amount of materials entering, circulating within and leaving the system. The main exit for materials from the Watershed is by water, which flows over a weir, a V-shaped dam installed in the streambed. The two weirs at Walker Branch are each equipped with a floating device that measures the height of water to the nearest one-thousandth of a foot.

One experiment conducted at the Watershed, Grizzard said, is the collection of wet fall (such as rain) and air borne materials called dry fall. A system of five rain gauges measures rainfall and gives a printout every five minutes of the exact amount of rainfall recorded. Located next to the rainfall gauges are devices that collect wet and dry fall separately for chemical analysis. The machine contains a sensor head which is activated by a single drop of water, causing a protective shield to cover the dry fall container while exposing another container for wet fall collection.

Trees show forest growth

The Watershed consists of 240 acres of mostly wooded area. This in-



COLLECTING 'FALLS'—Environmental Sciences Division researcher Tom Grizzard takes a reading from the Watershed's system of wet fall and dry fall collectors, which automatically take samples of materials that reach the area through the atmosphere. The system's rain gauges give a printout every five minutes of the exact amount recorded on the Watershed.

cludes 300 circular plots, containing one-fifth of an acre each, which provide a long-term measure of forest growth. Each plot includes from 30 to 65 permanently tagged trees, identified by species. Measurements of

diameter and total height are obtained every few years.

An experiment called "seasonal nutrient dynamics" was conducted on these trees to provide information on the nutrient concentration in tree

parts at different times of the year. The experiment involved drying, weighing and grinding tree part samples for chemical analysis.

Machines equipped with enclosed mobile platforms called "cherry pickers" are often used to collect leaves. In remote areas, researchers must sometimes use a shotgun to obtain leaves from the tops, or canopies, of some of the overstory (tallest) trees.

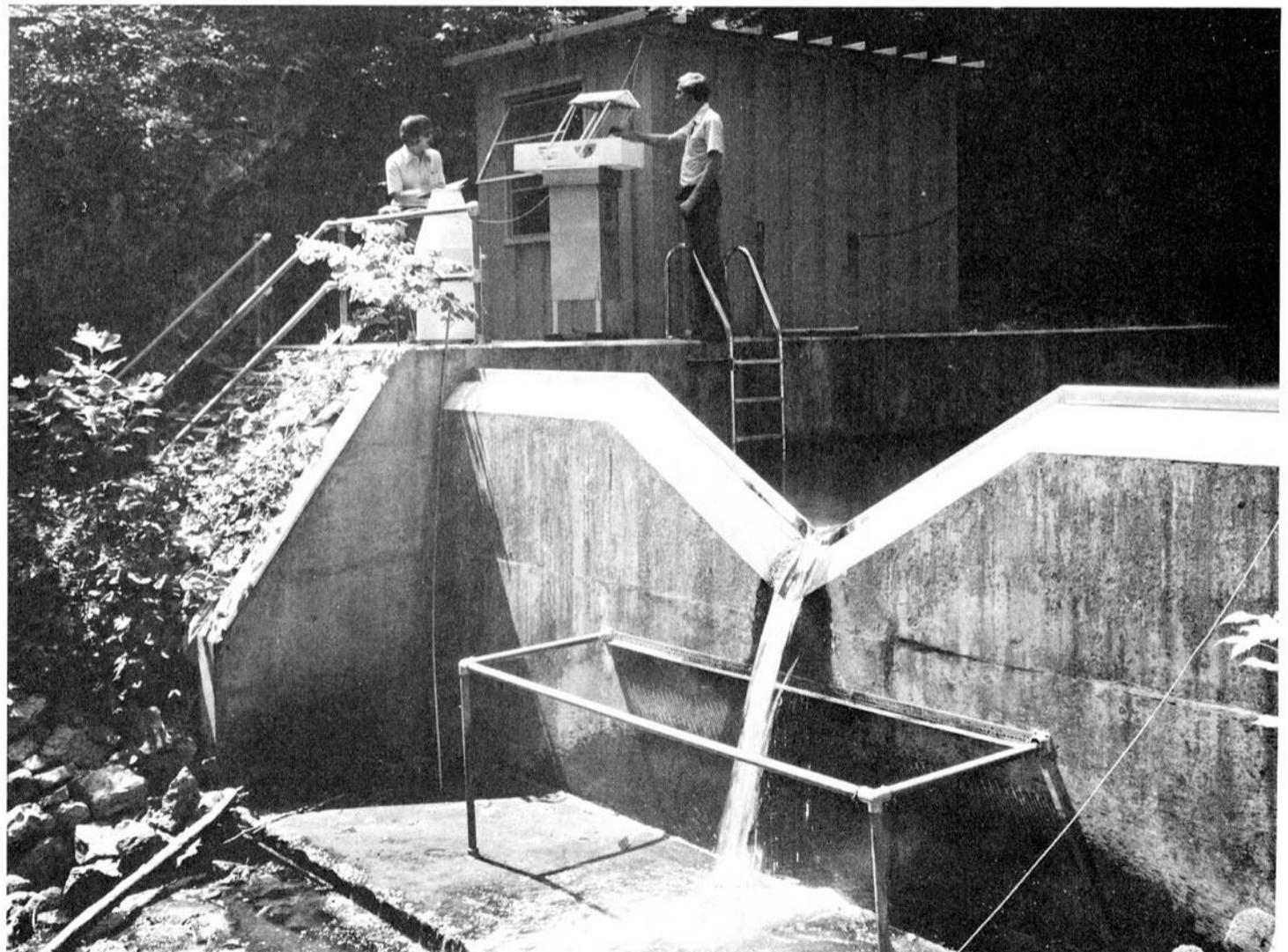
According to Harris, several "minor construction wonders" have been accomplished by ORNL's Plant and Equipment Division by installing tall towers and concrete walls containing delicate instruments with only minor disturbances to the natural forest.

Atmospheric pollutants studied

One of the major studies at Walker Branch Watershed has involved the analysis and movement of atmospheric pollutants, such as sulfur. Sulfur is deposited on the landscape both by rainfall and in the form of dry particles. In excessive amounts, it may be harmful to the biological system and may have long-term chronic effects on soils. This experiment helped determine the balance of sulfur in the system, and enabled researchers to judge the movement rate and the sites where sulfur was accumulating at the Walker Branch Watershed.

The amount of sulfur deposited on the Watershed from the atmosphere was as high as that recorded in the northeastern United States, where

(Please turn to page eight)



WEIRS MEASURE WATER—A weir at the Walker Branch Watershed measures the water yield from two sub-catchments divided by a ridge. Water samples are analyzed for nutrients and trace element contents; these analyses aid researchers such as Steven Lindberg (left) and Ralph Turner, shown working above, in characterizing physical, chemical and biological factors controlling element transport from the watershed.

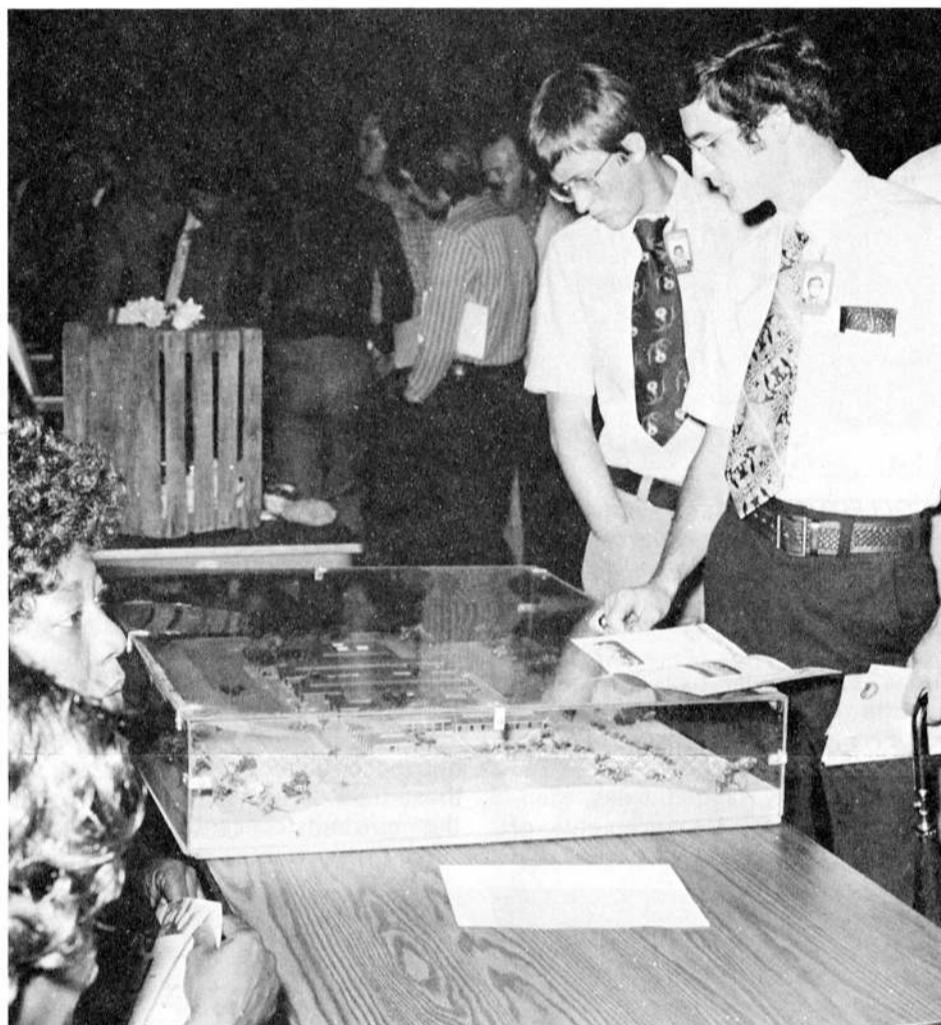
United Way kickoff: dialogue with 40 agencies

A different twist to this year's kickoff was provided by displays from 40 UW agencies. Following the keynote address by Fred Isaacs, kickoff participants were invited to browse through the literature, posters, etc., provided by the agencies and to ask questions of their representatives. The surrounding photos give a taste of how the morning went.



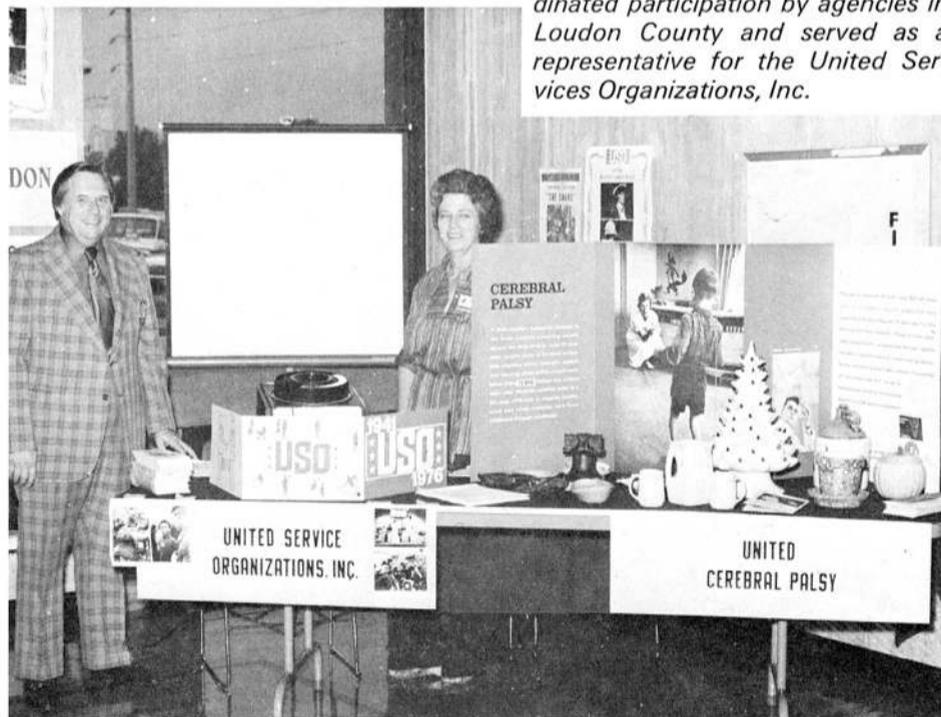
An audience of Nuclear Division United Way solicitors and campaign workers listens as Isaacs discusses "Community Involvement—the United Way."

Employees viewing displays by participating agencies pause to study a scale model of the Oak Ridge Mental Health Center.



Jerry Goldberg (center) of the Holiday Bureau explains to an employee how that agency benefits from United Way dollars. At right is Byrd Duncan, representing the Briceville Health Center.

Among the forty displays set up for the kick-off meeting were the two below. Roy Cardwell (at left in photo), ORNL staff member, coordinated participation by agencies in Loudon County and served as a representative for the United Services Organizations, Inc.



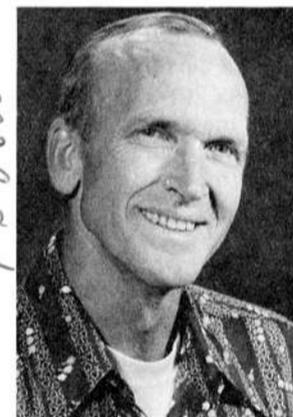
Thermonuclear Division renamed 'Fusion Energy'

The name of the Thermonuclear Division of Oak Ridge National Laboratory has been changed to the Fusion Energy Division, effective immediately, ORNL Director Herman Postma has announced.

"The thermonuclear program at ORNL has changed significantly in the past two years, with an expansion from an emphasis on plasma research to include the development of fusion technology and the application of plasma research to fusion reactor design," Postma said in announcing the change, which he said will reflect this broadening.

The change also parallels the recent adoption of the name "Division of Magnetic Fusion Energy" by ERDA's former Division of Controlled Thermonuclear Research, Postma said.

Assembly Division award to Y-12 man



C. A. Boone

C. A. Boone, of the Assembly Division at the Oak Ridge Y-12 Plant, has received a "safety, quality assurance and cost effectiveness" action award from his Division.

The award was made in recognition of Boone's development of a procedure to locate defects and allow products to be repaired and returned to the production stream.

Assembly Division employees determine who shall receive the award. It is used to honor employees whose actions have contributed to the health and safety, quality assurance and cost effectiveness for the benefit of Division employees and operations.

1976-77

CAMPAIGN GOALS

Anderson County	\$ 452,000
Knox County	2,175,000
Loudon County	58,032
Morgan County	12,100
Roane County	94,470



Guthrie new technical assistant

5781-76



Miriam P. Guthrie

Miriam P. Guthrie has been appointed technical assistant to Frank Bruce, Associate Director for Administration at Oak Ridge National Laboratory. She replaces Roger E. Perry, who has accepted an assignment with the Nuclear Division's Operations Analysis and Planning staff.

A native of Massachusetts, Guthrie received her bachelor's degree in mathematics from Wellesley College and her M.S. degree in physics from the University of Pennsylvania. For six years she worked as a physicist at the Naval Air Development Center in Johnsville, Pa., doing research on innovative methods for submarine detection.

Guthrie came to Oak Ridge in 1954 and worked for a time as a scientific analyst at the Atomic Energy Commission's Technical Information Center. In 1966 she joined ORNL's Neutron Physics Division, where she

performed theoretical analyses of intranuclear cascades and developed Monte Carlo computer codes to describe the results of intranuclear collisions at high energies.

In 1972 she initiated the Energy Information Center, part of the ORNL Information Division's Information Center Complex. She later became the Center's director, and was serving in this position at the time of her present appointment.

While at the Energy Information Center, where she was instrumental in building a bibliographic data base and an associated library of energy-related publications, she was editor of **NSF-RANN Energy Abstracts** and later co-editor of **Energy Abstracts for Policy Analysis**. She is a member of the American Society for Information Science and Sigma Xi.

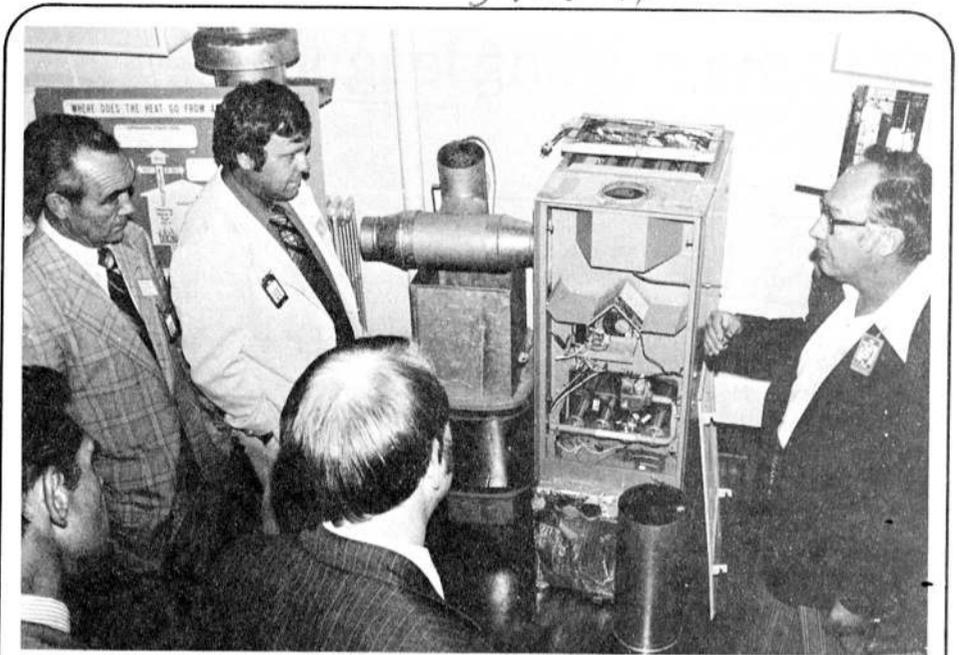
Guthrie lives at 112 Wendover Circle, Oak Ridge. She has a son, Chart, a senior at Michigan State University; and twin daughters, Ellen, a freshman at Virginia Polytechnic Institute, and Leslie, a freshman at Georgia Institute of Technology.

patents granted

To Walter G. Northcutt Jr. and William B. Snyder Jr., both of Y-12, for "Process for Fabricating Articles of Tungsten-Nickel-Iron Alloy."

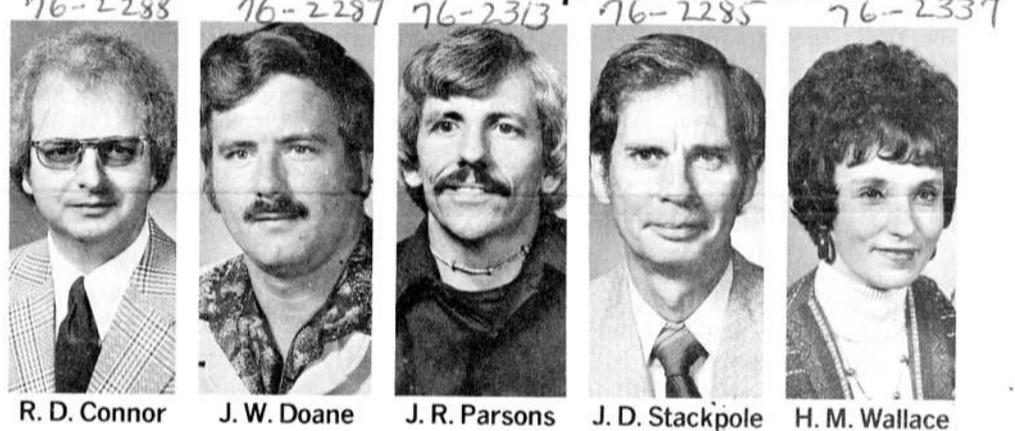
To Clyde M. Davenport, Gary L. Bowers and Albert E. Stephens, all of the Y-12 Plant, for "Interpolator for Numerically Controlled Machine Tools."

To Margaret K. Morrow and Cressie E. Holcombe Jr., both of the Y-12 Plant, for "Refractory Ceramic Compositions and Method for Preparing Same."



BRIEFING FOR BUSINESS LEADERS—Forty Nashville business and governmental leaders participated in a full-day energy briefing September 23 in Oak Ridge. The event, arranged through the Tennessee River Valley Association, included briefings and tours on the nation's energy outlook, residential conservation, fossil and nuclear development, fusion research, the Clinch River Breeder Reactor Plant and nuclear waste management. In addition to ERDA and the Nuclear Division, hosts for the group were the Oak Ridge Chamber of Commerce and the Roane-Anderson Economic Council. Above, Gene Hise of the ORNL Energy Division discusses conservation techniques with the visitors.

ORGDP announces promotions



R. D. Connor J. W. Doane J. R. Parsons J. D. Stackpole H. M. Wallace

Five promotions have been announced by the Barrier Manufacturing Division at the Oak Ridge Gaseous Diffusion Plant. Named to barrier supervisors were Ralph D. Connor, John W. Doane, Jerry R. Parsons and Hazel M. Wallace; and Jackson D. Stackpole was promoted to converter assembly supervisor.

Connor, who joined Union Carbide last year, had previously worked for Rust Engineering. A native of Canton, Ohio, he attended Kent State University.

His wife is the former Susan Von Burg and the couple has one son, Scott. Their home is at 123 New Haven Road, Oak Ridge.

Doane, who has been with Union Carbide for nearly seven years, worked at the Y-12 Plant before transferring to ORGDP more than a year ago.

A native of Knoxville, his wife is the former Joyce Brock. The Doanes have two daughters, Laura and Marisa, and a son, Jonathon. They live at Route 5, Millertown Pike, Knoxville.

Parsons, a native of Pennington Gap, Va., was raised in Oak Ridge. He had worked at the Y-12 Plant and Oak Ridge National Laboratory before transferring to ORGDP. He lives at 106 W. Dalton Road, Oak Ridge.

Stackpole, a former inspector in the barrier plant, is a native of Hastings, W. Va. He has worked with the Boeing Company Aerospace Division, and has more than 12 years service on the staff of Union Carbide.

His wife is the former Lou Dulaney, and they have grown children, John and Mary. The Stackpoles live at 100 East Passmore Lane, Oak Ridge.

Wallace worked at ORTEC prior to joining the staff at ORGDP more than two years ago. She is a native of Anderson County.

She and her husband, Paul E. Wallace, and three sons, Rick, Mark and Jody, live on Glenwood Drive, Clinton.

Appointed RERF consultant

John A. Auxier, director of the Health Physics Division, Oak Ridge National Laboratory, has accepted an appointment as consultant to the Dosimetry Program of the Radiation Effects Research Foundation, a cooperative Japanese-U.S. research organization.

Auxier joined the Nuclear Division staff in 1955 and was named to his present position in 1972. He is currently president-elect of the Health Physics Society.

Wilder named process supervisor

76-243



Elmer W. Wilder

Elmer W. Wilder, former process operator in the Metal Preparation Division at the Y-12 Plant, has been promoted to a process supervisor.

Wilder, who has been with Union Carbide for 25 years, has been self-employed and served in the U.S. Army.

A native of Hancock County, he is married to the former Stella Lively. They have a daughter, Carolyn, a son, James, and live at Route 1, Lenoir City.

Labor-Management Committee includes PGDP employees

Two Paducah Gaseous Diffusion Plant employees have been named to serve on the newly-reorganized West Kentucky Area Labor-Management Committee.

Bob Bond, Cascade Operations, who is president of the West Kentucky Area Labor Council, will co-chair the committee. Don Lane, Employee Relations, will represent the Paducah Area Industrial Relations Association.

The Labor-Management Committee consists of six members from labor and six members from management. Its principal purpose is to promote harmonious relationships in labor-management relations through communications, educational programs and other activities. Participation has included interested labor and management representatives from West Tennessee, Southern Illinois and Eastern Missouri as well as Western Kentucky.

With the bowling leagues . . .

ORNL

The month's end showed the ORAU team at the top of the ORNL 'A' League standings, with 66 points. Trailing them were the Limits, 57, and the Recycles, 51.5.

In the ORNL 'C' League, the Damagers won 28 points in the last week of September, jumping into first place with a total of 99 points—eight ahead of the Alley Rads. Next in line were the Old Men, with 85.5.

The Mousechasers took a strong lead in the ORNL Ladies' League, with 12 won and 0 lost. The Avengers, the Hi-Balls and the Bowling Aces all lined up for the second-place slot, each showing 7 won and 5 lost.

* * * * *

ORGDP

October's first week showed the Bowlettes leading the pack in the ORGDP Women's League, with a solid 90 points. The Uptowners held the No. 2 spot with 83, followed by the Spotters with 75.

In the K-25 Tuesday League, the Mishaps came to the top in mid-September and were still leading at last report with 61.5. Close behind were the City Slickers with 60 and the Atoms with 59.

The Planners continued to hold the edge over the Losers last week in the K-25 Wednesday League, showing 13 to the Losers' 10. Sue's Sooners took third-place honors with 9.

* * * * *

Y-12

The Y-12 Mixed League showed Two plus Two in the driver's seat at the end of September, with 10 won and only 2 lost. The second-place Friskies showed close behind with 9 won and 3 lost. In the third-place slot it was the Alleywreckers, 7 won and 5 lost.

By late September the Splinters had risen from ninth to first place in the Y-12 Classic League, showing 12 won and 4 lost. The Ridgers and the Playboys were second and third; they and the All Stars and the Tigers had each won 11 and lost 5.

* * * * *

Carbide Family Mixed

The Oops and the Challengers shared a 12 won, 4 lost record in the Carbide Family Mixed League last week, but the Oops' 7405 total pins gave them the No. 1 slot over the Challengers' 7128. Next in line were the Odd Balls with 11 won, 5 lost.

Snakes end unbeaten season



The Snakes captured the 1976 Atomic Softball League championship with a 16-0 record, followed by the E.S.D., 15-1; and the Gas House Gang, 13-3. The Snakes, who also won the Atomic League's Sportsmanship Award, show a regular season record since 1969 of 119 wins, 9 losses.

In the Carbon League, the Fes-Kids were the season champions with a 17-4 record. Second- and third-place honors went to the Streakers, 15-6; and the Terodactyls, 13-8. The Carbon League's Sportsmanship Award went to the Odds & Ends.

Members of the Snakes shown above are (kneeling, from left) E. T. Stamey, Calvin Angel, Marvin Anderson, Robert Culton and David Gallups; (standing, from left) Earl Nall, assistant manager; Horace Moorman, manager; Harold Conner, Vaughn Thomas, Horace Miller, Gerald Scott and Ronnie Sharp. Not pictured are Jim Fox, Arnold Hawkins, Joe Greenley, Stan Stines and Richard Tate.



CARBON LEAGUE CHAMPS—The Fes-Kids took the 1976 Carbon League softball championship recently, with a 17-4 season. In the front row, from left, are John Schultz, Andy Zava, Nancy Owens, Stan Kemmit and E. T. Stamey. Second row, Jerry Brown, Kent Dixon, Barry Brackney, John McMurray, Larry Owens, Connie Strike, Gordon Hill, Jerry Beeler and Robert Robertson.

recreationotes

.22 Caliber Pistol League gives season's-end awards

The All-Carbide .22 Caliber Pistol League wound up its Summer 1976 season with the presentation of scratch and handicap awards.

Scratch awards went to E. T. Johnson Jr., first place, with a scratch average of 283.857; T. Lemons, second, 276.636; and J. E. Brewer, third, 272.625.

First place in the handicap awards went to N. F. Kuneman, with a handicap average of 290.976. L. M. Toth took second-place honors with 287.613; third place went to Ken Dale, 287.336.

Skeet league

Alan Van Hull held the first-place slot in the Skeet League for September with a score of 49.156. Russell Allstun claimed the number two position with 48.624, and Helen Raaen followed in third with 48.400.

August's winners were Bert Searles, first, 48.878; George Kwiecien, second, 48.768; and Ken Moore, third, 47.976.

Presidential Sports Award

Herman Postma, ORNL Director, has received the Presidential Sports Award certificate, emblem and pin in swimming.

wanted



ORNL

CAR POOL MEMBER, vicinity of Country Club Apartments and Landmark Subdivision off Middlebrook Pike, Knoxville, to East Portal, any shift. Jackie Sims, plant phone 3-1486; home phone 693-8829.

RIDER to join Knoxville Commuter Van Pool from West Knoxville, I-40 Papermill Road exit or Walker Springs Road exit area. R. L. Pearson, plant phone 3-1875; home phone 588-9949.

ORGDP

RIDE or will form CARPOOL from Lenoir City to any portal, A-shift. Ed Maples, PAX 511, or home 986-7386.

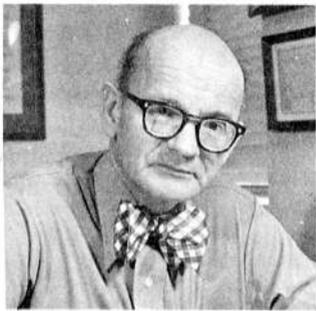
Y-12 PLANT

RIDERS WANTED for VANPOOL from North Knoxville (Magnolia) to all portals, via I-40 and Mabry Hood Road, straight day. H. A. Hanna, phone 3-7988, home Knoxville 522-0587.

RIDE or WILL JOIN CARPOOL from Cumberland Estates Shopping Center, Oak Ridge Highway, Knoxville, to North Portal, straight days. E. D. Parker, plant phone 3-5589 or 3-5732; home phone 525-9268.



COWEN RITES—Sharon Elaine Resseguie and John P. Cowen were united in marriage in June at the Robertsville Baptist Church in Oak Ridge. The bride is employed in the Purchasing Division and the bridegroom, the son of the late Don D. Cowen, who was ORNL's director of public and technical information, is employed in the Electrical Engineering Department at ORGDP.



medicine chest

by T. A. Lincoln, M.D.

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

Psychological help for son?

QUESTION: "My two and one-half year old son wants to cover his head at night when he goes to bed, saying he is hiding. Naturally, we are afraid he will suffocate. Do you think we should seek professional assistance to find out underlying psychological reasons for his actions?"

ANSWER: Your description certainly doesn't alarm me. A healthy two and one-half year old isn't going to suffocate because he ducks under a few covers when he goes to bed. If he seems otherwise normal, I would suggest you relax. Don't bother a psychiatrist or psychologist. If you are still not reassured, call your family doctor or pediatrician. Remember also, that when kids have psychological hangups, it is their parents who need to get help, not the kids.

Literature on middle age

QUESTION: "A lot has been written about loss of physical sensitivity during marital relations as women pass the menopause. Is there literature available on the same problem where males are concerned?"

ANSWER: Some may be shocked at this question in a company newspaper, yet it certainly deserves an answer. Yes, indeed, there is an extensive literature, especially in recent years, on sexual function in middle and advanced age. Articles have appeared in popular magazines and the medical literature. Probably the best reference is **Human Sexual Response**, by William H. Masters, M.D., and Virginia E. Johnson (Little, Brown and Company, Boston, 1966). It has two excellent chapters on the anatomy and physiology of the aging male and female. This book is available in the Oak Ridge and Knoxville public libraries.

Love increasingly important

For those who don't want to struggle trying to understand this fairly technical book, I think I can summarize their findings. Older men are slower to respond and slower to climax, and the duration of orgasm is diminished. Even though there is a fading of the driving sexual impulse, older men are frequently capable of a happy sexual relationship until advanced age. With maturity, the deep meaning of love in that relationship becomes increasingly important.

It is a shame that youth is wasted on young people! They often consume drugs such as alcohol, tobacco, am-

phetamines and marijuana to somehow alter—and presumably improve—their consciousness and heighten their sensitivity. They don't realize that maximum function of the motor and sensory nervous systems requires excellent health aided by proper nutrition, exercise and rest and must not be impeded by drugs. Anything else they do only reduces their sensitivity and performance. Middle-aged people have often found this out from sad experience, but are not able to change.

On peace of mind

QUESTION: "We all know the rules. Don't smoke, don't drink, eat properly and get plenty of exercise and enough sleep. But good health is often tied to peace of mind and mental stability. Is peace of mind within our reach in this chaotic world? If so, how can we attain it?"

ANSWER: Peace of mind is a recurrent obsession with many people. Somehow they want to reach that nirvana where they have complete freedom from pain, worry and the external world. Unfortunately, when a person leaves the womb at birth, that freedom is gone forever.

Insecurity, worry and anxiety are part of what keeps us alive. They are distressing, but they normally motivate us to try to somehow improve our condition. Currently the medical profession and the drug, alcohol and tobacco manufacturers often give people too attractive ways to avoid or endure their distress. Some medication may be necessary and valuable, but without personal pain, few people are going to make the decisions and take the actions which will get them out of the deep holes they find themselves in. More people need to be willing to "turn on" rather than "drop out."

Some people find comfort in religion or transcendental meditation. Others need their misery to get sympathy and attention. Many who yearn for this mythical "peace of mind" might find it awfully boring if they ever really achieved it. Life is a struggle, and peace of mind probably comes best to those who fight a good battle and not to those who sit passively on the sidelines.

... and a final query

QUESTION: Are more questions needed?

ANSWER: Yes. I would appreciate questions about general medical problems. Questions like the ones in

Savings Plan-Personal Investment Account

Recent unit values:

	Fixed Income Fund	UCC Stock	Equity Investment Fund
August 73	10.0000	34.7688	10.0000
December 73	10.2444	31.8170	9.3602
December 74	11.0438	40.3009	6.4354
December 75	11.9880	58.7886	7.8231
June 76	12.5112	68.8163	8.7524
July 76	12.6001	65.5359	8.6664
August 76	12.6898	64.0878	8.6330

Note: Fixed Income Fund unit values reflect interest additions to achieve the guaranteed effective annual interest rate of 8.85% for 1976. Union Carbide stock values are the average cost of stock purchases during the month plus brokerage charges. Equity Investment Fund unit values represent the month-end market value of securities held by the Fund. Dividing the total value by the number of units in the fund establishes the month's unit values—and the price at which new units are added that month.

division deaths

Scott Lee Wilson, a laborer in Plant and Equipment Division, Oak Ridge National Laboratory, died September 1 at his home at Route 1, Townsend.



Mr. Wilson

Mr. Wilson joined the Nuclear Division in August, 1974.

He is survived by his wife, Mary O. Wilson; four daughters, Gina, Tina, Crystal and Holly Wilson; a son, Jayson Wilson; his mother, Mrs. Violet Wilson; and a brother, Gordon Wilson.

Funeral services were held September 3 in the Miller's Funeral Home Chapel in Maryville, followed by burial in Carpenter's Campground Cemetery there.

James L. English, an engineer in the Chemical Technology Division at Oak Ridge National Laboratory, died September 17 at a Knoxville hospital.

William Edward Bayless, a senior laboratory analyst in the Analytical Chemistry Division, Oak Ridge National Laboratory, died September 29 at his home in Wolf Valley Community, Clinton.

A native of Sunbury, Pa., Mr. English graduated from Syracuse University. He joined the Laboratory staff in September, 1947.



Mr. English

Survivors include his wife, Mrs. Susanne Stutsman English;

daughters Cynthia and Karen English, all of 7904 Livingston Drive, Knoxville; and a sister, Mrs. Robert McDonald of Sunbury.

Services were held September 19 at Highland Memorial Cemetery with the Rev. John Lackey and the Rev. Boyd Daniels officiating.

Mr. Bayless joined the Nuclear Division staff in 1947. He is survived by his wife, Lena Mills Bayless; two sons, Larry and Joel Bayless; and a sister, Daisy Dean Bayless.



Mr. Bayless

Funeral services were held October 2 at Zion Baptist Church in Claxton Community, followed by burial in Tennessee Valley Memory Gardens.

Harold A. Kermicle, a development associate in the Gaseous Diffusion Development Division at the Oak Ridge Gaseous Diffusion Plant, died October 1 in the Oak Ridge Hospital. He had been at ORGDP since September, 1945.

Mr. Kermicle is survived by his wife, Mary Boyd Kermicle, 102 W. Maiden Lane, Oak Ridge; two sons, Perry and Dennis Kermicle; two brothers, Gene Kermicle and Gerald Kermicle, both of Dundas; one sister, Mrs. Otto Von Almen of Memphis; and several nieces and nephews.



Mr. Kermicle

Services were held October 4 in the chapel of Martin Funeral Home of Oak Ridge. The body is to be cremated. The family requests that any memorials be in the form of gifts to Grace Lutheran Church, Oak Ridge.



RECEIVES NAB CERTIFICATE

—Frank E. Gethers, an employee in Separation Systems at the Oak Ridge Gaseous Diffusion Plant, recently received a certificate of recognition from the National Alliance of Businessmen for his participation in Youth Motivation Task Force activities. From left are Robert M. Schilling, department head in Separations Systems; Gethers; and Robert D. Ellingson, group leader in Separation Systems.

this article are fun to answer and make me feel a little like a male Ann Landers, but they don't give much medical information, which I feel is my real responsibility. I cannot promise to answer every question, but I shall continue to try to use most of them.

Walker Branch Watershed

(Continued from page three)

sulfur effects are of considerable concern to biologists. Electric utilities are

also concerned, especially from the standpoint of having to install expensive pollution control devices to maintain acceptable levels of air quality, Harris said.

May develop other areas

Additional studies adjacent to the Watershed compare the movement of water through heavily-rooted soil with soil containing only a few roots. Information obtained from this study will help researchers understand how water and other nutrients enter trees and affect their growth.

There are no plans to treat the Walker Branch Watershed, although other experimental watersheds across the country have been fertilized or otherwise altered. The Environmental Sciences Division is currently making plans to develop additional experimental field areas on the Oak Ridge reservation to be used, along with Walker Branch, in determining the environmental impact of present and future energy technologies.

Thus, the patient will continue to be diagnosed in order to understand how a "healthy patient" operates. These diagnoses will provide the scientific understanding which will help us to assess the long-term consequences of other, more heavily polluted environments.



DATA FROM 'DOWN UNDER'—Tom Grizzard checks monitoring equipment mounted in the wall of a pit forming one side of an undisturbed six-by-six-foot soil block used to conduct studies on the movement of water and chemical elements in soil at Walker Branch Watershed. The other three sides of the soil block are lined with plastic to a depth of six feet. Movement and chemical composition of water are monitored as the water percolates through the block to the groundwater.

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.

Measuring performance

QUESTION: Under the guidelines and procedures used to measure the performance of nonexempt salaried employees, can a secretary who clearly demonstrates a level of performance commensurate with the "1 - Outstanding" rating be given that rating, or is it reserved for highly technical or "perfect" employees? Are the guidelines for this year's program comparable to those of 1975?

ANSWER: Any nonexempt salaried employee who clearly demonstrates a level of performance commensurate with the "1 - Outstanding" rating can and should be given that rating. It is not a rating reserved for the highly technical or "perfect" employees.

It is a high rating. As a matter of fact, it is the highest rating obtainable under our performance appraisal system. To earn such a rating, an employee must have demonstrated performance which is exceptional to such a degree that it is clearly obvious and can be readily demonstrated or explained.

In answer to your question, the 1976 guidelines are essentially the same as 1975's.

Golf supplies in stores

QUESTION: Why can't the Company stores order golf equipment?

ANSWER: We do carry UCC golf balls, golf gloves, and golf umbrellas but do not carry a wide range of golf equipment because we do not want to compete with the golf professionals in this area who derive a large part of their income from this source.

To head ANS division committee

Helen Pfuderer, Information Division at Oak Ridge National Laboratory, has been elected program committee chairman for the Environmental Sciences Division of the American Nuclear Society. In addition to her duties as chairman she will represent her division on the national program committee.

Pfuderer is director of the Environmental Sciences Information Center at ORNL. She joined the staff as a consultant in 1971 and became a regular employee in 1975.

Clerical salaries

QUESTION: It's a well known fact that clerical employees are the lowest paid in the Company. Sometime ago I heard clerical salaries were "being looked at" to determine whether they were adequate for our inflated economy. Were they looked at, and if so, what if anything was concluded?

ANSWER: The salary ranges applicable to the various clerical classifications, as well as other classifications, are evaluated on a continuous basis using salary survey data comparing the Nuclear Division with other major employers in the immediate and surrounding areas. Nuclear Division salaries are highly competitive and compare very favorably with other employers.

FICA tax and sick leave

QUESTION: I would like to know why no FICA tax is deducted from my salary (monthly) for days when I have been on sick leave. Is this an IRS or a Union Carbide policy? Since the salary paid during such absences is included in the total wages that are reported for income tax purposes, it does not seem fair that it is not also credited toward total earnings for Social Security purposes.

ANSWER: The Federal Social Security law provides that payments by an employer to an employee for sickness or accident disability are not taxable wages for FICA purposes. These payments are taxable, however, in connection with normal Federal income taxes.

Union Carbide, therefore, is merely observing the applicable laws in making deductions as they do.

anniversaries

Y-12 PLANT

30 YEARS

Joe F. Jennings, Plant Protection Department; Ethel M. White, Beta-2 Chemistry; and Mirel L. Garrison, Beta-4 Heavy Machine Shop.

25 YEARS

Irene F. Ridings, Rosie B. Strong, Richard M. French, Joe Mitchell, Frank E. Shipley Jr., Elmer R. McConkey, William J. Foley, Samuel A. Hodnett, James E. Warren, and Frederick E. Baker.

Alice L. Hensley, Joyce R. Gillihan, Bruce A. Murr, Walter Wolfe Jr., Homer T. Crawford, Isaac F. Cox Jr., Isaac V. Goins, Windell L. Nelson and Albert R. Merrell.

20 YEARS

Roy Wilson.

ORGDP

30 YEARS

Lawrence D. Pack, Fabrication Shop; and John M. Billings, Chemical Operations Administration.

25 YEARS

George L. Marshall, William M. Ewing, James H. Fuller, Watson R. Kerr and James W. Myers.

PADUCAH

25 YEARS

John W. Brinkley, Dale Melugin, Grover R. Talley, Robert B. Piercy, Kenneth Owens, William M. Gill, Neal B. Canter, and Bonnard F. Slack.

John R. Rushing, James B. Smith, George W. Barger, Jack L. Hulett, John W. Owen, George L. Slack, Freeland E. Smith and Lee M. Tilford.

ORNL

30 YEARS

George R. Patterson Jr., Health Physics Division; John R. Tallackson, Engineering Technology Division; Joseph H. Paehler Jr., Chemical Technology Division; Henry E. Teasley, Operations Division; and Roy C. Lovelace and Herbert R. Gwinn, Chemical Technology Division.

25 YEARS

James M. Farmer, Eugene E. Ketchen, Wilbur D. Shults, Raymond M. Burnett, Marvin T. Morgan, Eugene F. Oakberg, James G. McNabb, William T. Martin Jr., Edgar G. Miller, James W. Calvert, Ben L. Houser and Teddie E. Welch.

20 YEARS

Melba J. Bolinger, Warren G. Sisson, Chester S. Morgan Jr., James W. Johnson, Robert P. Keener, Eugene C. Keith, Franklin E. Hatfield, Hugh H. Shelton, Lincoln Jung and Grimes G. Slaughter.



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