



NUCLEAR DIVISION NEWS

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

Vol. 6 No. 11

June 5, 1975

QUESTION BOX

If you have questions on company policy, let us know. Write the Editor, Nuclear Division News (or telephone your question in, either to the Editor, or to your plant contact). Your name will not be used in the question, and you may be given a personal answer if you wish.

QUESTION: A job bid was recently posted at Y-12 for an Executive Secretary in the General Staff organization. Since the General Staff serves all four plants, why were only Y-12 secretaries eligible to bid on the job?

Promotional opportunities of this type for secretaries are few and far between, and as the General Staff has more Executive Secretaries than the other plants, it seems discriminatory to consider only Y-12 personnel.

ANSWER: We understand your concern. However, the Job Opportunity System is presently administered exclusively on a location-by-location basis. As we have previously indicated, the System is subject to periodic review and improvement. On the basis of the concern voiced by you and others, we will give further consideration to the possibility of identifying certain positions to be bid on a Nuclear Division basis.

QUESTION: Why is the Benefit Plans office telephone busy for so many hours at a time? I recently tried to reach the number for three solid hours.

ANSWER: The Y-12 Benefit Plans Office phones were out of service one

afternoon recently. We think your question may have been a result of this. We will make every attempt to see that this does not happen again.

Just to follow up on your question, we have recently placed a number of calls to the various Benefit Plans Offices and have been able to get through regularly.

QUESTION: There is an hourly employee in the Assembly Division of Y-12 who has been off work for over two years and has been receiving full pay during this absence. Is this situation covered by Company policy? If so, which policy is applicable?

ANSWER: There is a question concerning the employee's continued eligibility for his present employment at Y-12. While this matter is being resolved, we have been instructed by ERDA to continue his pay. This practice is consistent with ERDA policy for employees of contractors such as Union Carbide in similar circumstances.

QUESTION: Is there anything we could do to help have better bank fishing at the Clark Center Recreation Park? I'd sure help. Many children and elderly people could enjoy this - and many do not have boats.

ANSWER: We realize that the shorelines at the Park are not level enough in some spots for bank fishing. It is possible that a fishing pier will be included in future Park development. We also will take a look at putting walking paths near the water in locations that are not easily accessible.

QUESTION: In view of the fact that Union Carbide has discontinued the Retirement Plan, why aren't employees allowed to contribute to the Pension Plan in order to increase benefits? Carbide has a very good benefit package as the table in the February 20 issue of Nuclear Division News demonstrates; however, there is one serious deficiency which doesn't show up, that being pension benefits. It is not unusual for retirees from other companies (including ERDA contractors listed) to receive pension benefits considerably higher than those received by Union Carbide retirees simply because they are per-

Nuclear Division achieves 15.6% reduction in energy consumption

Through measures recommended by the four-plant Energy Conservation Committee, the Nuclear Division reduced its energy consumption by 15.6 percent during the first three quarters of this fiscal year. George Oliphant, committee chairman, reported that the total energy used by the Division during the nine month period through March 31 was 15.6 percent lower than energy consumed during the corresponding period in FY-1973. (Fiscal year 1973 is the base year for measuring energy conservation in government installations.)

This energy saving was of particular significance in view of the fact that last winter was colder (3,715 degree days this year compared to 3,326 degree days in FY-1973, and a 30-year average of 3,647 degree days).

Conserves all energy

The Energy Conservation Committee, which began its efforts long before the energy crisis developed, has as its purpose conservation of all forms of energy. It consists of coordinators from the four Nuclear Division installations. They are: R.G. Taylor, Paducah Gaseous Diffusion Plant; George L. Copeland, Oak Ridge Gaseous Diffusion Plant; Edward B. Harris, Technical; and Edward J. Witkowski, Holifield National

Laboratory. Oliphant is coordinator for the Y-12 Plant. Each coordinator has an energy conservation team consisting of representatives from each division in his plant.

The Committee developed both short- and long-term energy conservation practices. Included are: using hot water from the gaseous diffusion separating cascade to heat pump houses and switch houses within the plants; adjusting air conditioning systems and removing space heaters; converting incandescent street and fence lighting to more efficient mercury vapor units; developing an interplant gasoline rationing system for the plants in Oak Ridge; improving bus and shuttle services; and encouraging employees to use car pools to commute to work.

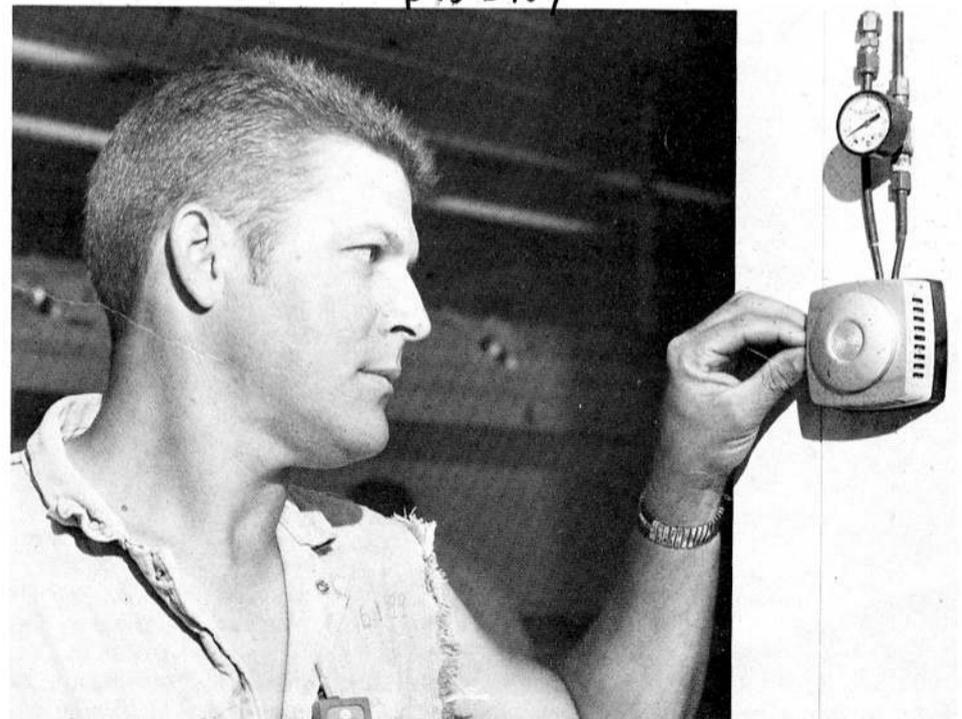
(Continued on page 10)

SAVINGS PLAN

The 1975 General Savings Plan checks will be mailed to employees' homes on Saturday, June 28.

Checks may be picked up at each Timekeeping Office, Monday, June 30, or mailed to the employee's bank for deposit. However, authorization must be received by each Timekeeping Office by June 20 for either of these options. If they are not received, the check will be mailed to the employee's home.

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UP GOES THERMOSTAT — Lonnie Hendrickson, Y-12 utility operator, adjusts a building thermostat in Building 9995 as an energy conservation measure. Reducing building heating and air-conditioning is considered a prime method of conserving energy.

(Continued on page 10)

8th in series

'Other Benefits' cost 1 cent per Division payroll dollar

In each of the past seven issues of the **Nuclear Division News**, we have discussed the cost of the principal benefits which are provided for employees at the four Nuclear Division facilities. These have included Vacations; Holidays and Other Time Off With Pay; Social Security; Pension and Retirement; Life Insurance, Hospitalization and Medical Insurance; and the Savings Plan. The cost of all these benefits in 1974 was 35.5 cents per payroll dollar out of the total cost of 36.5 cents for all fringe benefits.

The other 1 cent per payroll dollar was spent in providing Workmen's Compensation Insurance, Unemployment Compensation Insurance, Layoff Allowance Payments, Educational Assistance Refunds, and Awards to those employees who completed 25 years' service.

Workmen's compensation

Most employers provide their employees with some protection against loss of pay when they are not able to work because of an illness or injury that they incurred as a result of their job, in line with the State Workmen's Compensation provision. In addition, medical expenses are paid. The law also provides for additional sums of Workmen's Compensation benefits ranging from a few weeks for permanent partial disabilities up to 400 weeks when the employee is totally and permanently disabled. Our Workmen's Compensation insurance cost the Company only 1/6th of 1 cent per payroll dollar last year due to the very few injuries involved.

In a previous article which discussed pay for time not worked, it was pointed out that the Company continues to make certain wage and salary payments to employees when they are unable to work because of

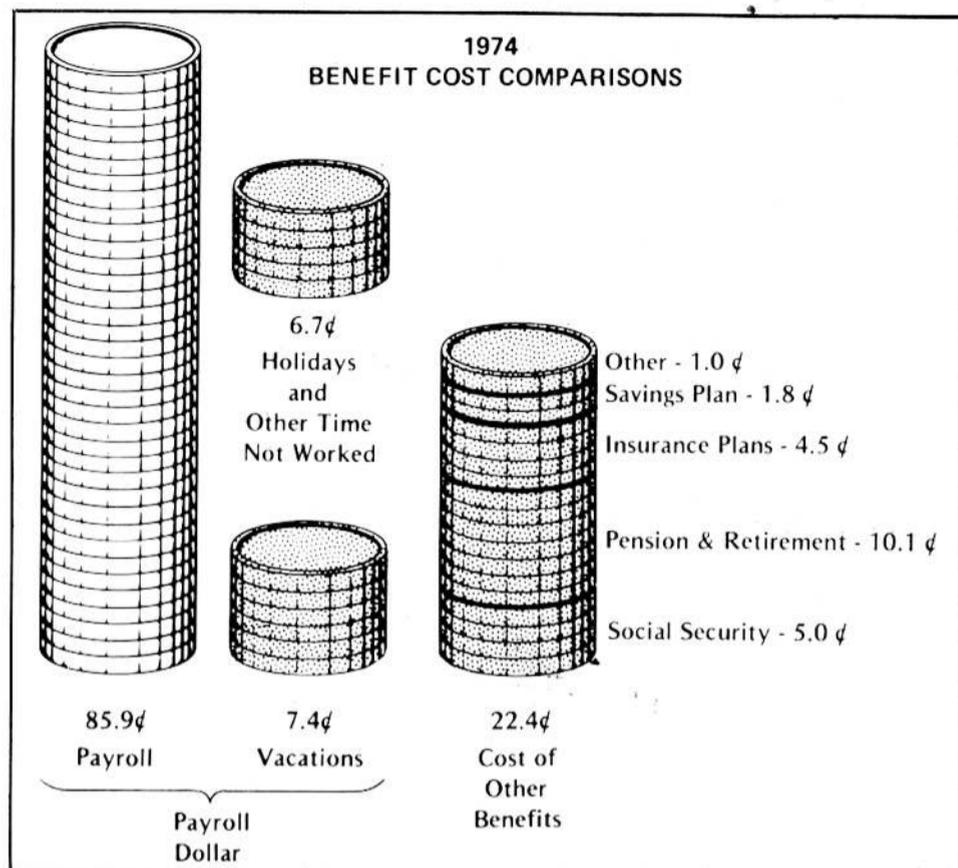
an illness or injury. In the case of absences caused by occupational conditions, the amount of their wage and salary payments, combined with any payments from Workmen's Compensation Insurance, enables the employee to continue receiving 100% of his straight-time earnings for his regular scheduled work hours during the period required for convalescence. The cost of these wage and salary payments was included in the previously reported 2.7 cents per payroll dollar spent for pay for time off other than holidays and vacations.

Layoff allowances

An employer is required by law to pay Unemployment Compensation Insurance premiums for the purpose of building up a fund from which the State can pay unemployment compensation. In 1974 the Company's payments across the Nuclear Division for these benefits were 0.38 cents per payroll dollar.

The Company paid out an average of 0.46 cents per payroll dollar in 1974 for Layoff or Termination Allowance to those employees who were laid off due to lack of work, who were terminated due to retirement under the Pension Plan, or who were given a medical termination because of health reasons.

In 1974 more than 600 employees received \$72,000 in refunds for educational courses completed under the provisions of the Educational Assistance Program. The Company would like to see every employee improve his educational level and capabilities for performing jobs in the fields of work carried on at Oak Ridge and Paducah. To this end, when courses are properly approved in advance and satisfactorily completed, the Company will pay 50% of the costs of tuition, books and supplies. If you are interested in being a participant in



this program, see the Educational Assistance representative at your installation.

Additional fringes

An additional \$24,000 was spent on watches, clocks, and rings for employees who completed 25 years of service in 1974 under the provision of the Company's 25-year Award Program. Through 1974, approximately 3500 Nuclear Division employees had completed 25 years with Union Carbide Corporation since the beginning of operation in 1943.

The combined cost of the Educational Assistance Program and the 25-Year Award Program in 1974 was less than 0.05 cents per payroll dollar.

The total cost of all of these other benefits, Workmen's Compensation, Unemployment Insurance, Layoff Allowance, Educational Assistance, and 25-Year Award is approximately 1 cent per payroll dollar.

This completes all of the items in our Box Score, showing how the

overall 36.5 cents per payroll dollar is distributed:

Vacations	7.4c
Holidays and Other Time Off with Pay	6.7c
Social Security	5.0c
Pension & Retirement	10.1c
Insurance Plans	4.5c
Savings Plans	1.8c
Other Benefits	1.0c
Total	36.5c

Ambition makes the same mistake concerning power, that avarice makes as to wealth. She begins by accumulating it as a means to happiness, and finishes by continuing to accumulate it as an end . . . Caleb C. Colton

NUCLEAR DIVISION NEWS



Published twice-monthly for
The Employees Of
UNION CARBIDE CORPORATION
NUCLEAR DIVISION

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ORGDP AFFIRMATIVE ACTION COMMITTEE — The Oak Ridge Gaseous Diffusion Plant's Affirmative Action Committee recently held its first meeting with the new plant coordinator. Seated from left are David M. Andrews, Fabrication and Maintenance; Esther B. Wright, Employee Relations; B. Wayne McLaughlin, Plant Coordinator; W. Eugene Rooks, Engineering; and Lamar C. Toomer, Operations Planning and Analysis. Standing are W. Gerald Johnson, Computer Sciences; Harry J. Brown, General Accounting; Opal M. Waller, Purchasing; Eileen A. Walbrecht, Finance, Materials and Services; Robert L. Higgins, Gaseous Diffusion Development; Carl L. Butcher, Auditing; Harry Sartelle, Security and Plant Protection; and Paul G. Humphrey, Barrier Manufacturing. Not pictured are John L. Arrowwood, Separations Systems; Mazie L. Fouse, Laboratory; and James G. Rogers, Operations. The committee anticipates a 1976 plan, more specific and detailed than ever at ORGDP.

PH 75-844 PH 75-1024 PH 75-1003 PH 75-1002



H.H. Lett F.J. Ludwig J.E. Schultz J.W. Smith

Lett, Ludwig, Schultz, Smith promoted to posts at ORGDP

Two men have been promoted to foremen, one to a senior buyer and one to an accounting analyst at the Oak Ridge Gaseous Diffusion Plant.

Herman H. Lett has been named a preparation shop foreman in the

Maintenance Division. A native of Powell, he has been with Union Carbide almost 24 years. He attended The University of Tennessee.

Mrs. Lett is the former Betty Lou Vaughn and they live at Powell, on Irwin Road. They have three children.

Floyd J. Ludwig has been promoted to a barrier foreman in Barrier Manufacturing. He was born in Denver, Colo., and worked at the Y-12 Plant three years and at Holifield National Laboratory three years before transferring to ORGDP in 1973. He also attended UT.

His wife is the former Jessie Tallman and the couple lives at 213 Barberry Drive, Knoxville. They have three children.

John E. Schultz was recently named a senior buyer in the Purchasing Division. A native of Washington, D.C., Schultz has been at ORGDP one and one-half years. He holds a B.S. degree from East Tennessee State University.

He and his wife, the former Cynthia Ann Wildman, live at 5700 Pleasant Ridge Road, Knoxville.

James W. Smith has been promoted to an accounting analyst in the General Accounting Division. A native of LaFollette, he holds a B.S. degree in business administration from Maryville College.

He and his wife, the former Juanita Webb, live at 301 Cross Street, Clinton. They have three children.

ANS president-elect appointed to Laboratory's LMFBFR program

Melvin J. Feldman, president-elect of the American Nuclear Society, has been appointed program manager of engineering systems for the Liquid Metal Fast Breeder Reactor Fuel Recycle Program at Holifield National Laboratory.

Formerly an associate division director of Argonne National Laboratory - Idaho, Feldman will be responsible for engineering studies, component development, and conceptual design on the developmental facilities for the program. He will report to William D. Burch, director of the LMFBFR Fuel Recycle Program.

Prior to joining the staff at ANL in 1960, Feldman was employed by the Westinghouse Electric Corporation. He worked at HNL in the Metals and Ceramics and Solid State Divisions from 1950 to 1956.

Feldman was responsible for the design and construction of the Hot Fuel Examination Facility, which recently began hot operation at the Idaho National Engineering Laboratory. His work at the HFEF included an in-depth review of the proposed design and operation of the facility, and supervision and management of remote fuel fabrication operations.

He developed the initial concept and configuration for HFEF when its role changed from that of a fuel cycle facility to that of an examination facility. Preceding its role as an examination facility, the HFEF complex was devoted to fuel reprocessing and fabrication of fuel for the EBR-II. As the Fuel Cycle Facility (FCF) it was an integral plant to the EBR-II and in the period 1965 to 1969, remotely processed five core loadings for that reactor.

Feldman received his bachelor of science degree in metallurgical



Melvin J. Feldman

engineering from Purdue University and his M.S. in metallurgy from The University of Tennessee. He has published more than 20 papers on remote handling and radiation damage studies.

Feldman and his wife, Nancy, have five children. They reside at 237 Gum Hollow Drive, Oak Ridge.

Division Deaths

J. Luther (Jack) Robinson, a 30-year veteran at the Oak Ridge Gaseous Diffusion Plant, died at a Knoxville hospital May 19. He was a process foreman in the Operations Division.



Mr. Robinson

Survivors include his wife, Mary Ellen Robinson, Solway Road, Byington; two daughters, Monica Willis and Jacqueline Robinson; mother, Mrs. Nolar N. Robinson; three brothers, Forrest, Alfred and Johnny Robinson; four sisters, Onie Mae Frazier, Mattie Marlar, Grace Floyd and Emily McNair; and two granddaughters.

The funeral was held at the chapel of Weaver Funeral Home, with the Rev. Cleo Watts and the Rev. James Forgey officiating. Burial followed in the New Gray Cemetery.

Wells M. Stanley Jr., an engineering department supervisor in Engineering at Holifield National Laboratory, died May 13 at Oak Ridge Hospital.

A native of Huntsville, Ala., Mr. Stanley joined the Laboratory staff in July, 1945. He was a graduate of Auburn University and a member of the Tennessee Society of Professional Engineers.

He is survived by his wife, Helen Peterson Stanley, 25 Westover Circle, Oak Ridge; his mother, Mrs. Wells M. Stanley, Sr., of Winterhaven, Fla., and one brother, Charlie P. Stanley, of Tampa, Fla.

Funeral services were held May 15 at First United Methodist Church, Oak Ridge. The Rev. Charles Fowler of First United Methodist Church and the Rev. Larry Caylor of United Methodist Church of Caryville officiated. Burial was in Oak Ridge Memorial Park.

COMPANY Service

20 25 30

LABORATORY 30 YEARS

Ralph Livingston, Chemistry; Homer L. Gaskins, Plant and Equipment; Lester A. Myers Jr., Engineering; John M. Peele, Analytical Chemistry; Thomas E. Rush, Plant and Equipment; Jane R. Morrison, Metals and Ceramics; Rex E. Leuze, Chemical Technology, and William I. Tillery, Plant and Equipment.

25 YEARS

John S. Addison, John T. Gray, Virgil M. Johnson, William E. Sallee, Mary P. Stooksbury, William Sewell, Daniel P. Kimbrough, Billy H. Montgomery and William R. Johnson.

20 YEARS

Swan E. Breeding, Thomas S. Noggle, George R. Archer, Robert E. Kerby, James L. Blankenship, Charles J. Claffey, Bobbie J. Hoyle, Charles R. Sherlin, Leland Ratliff, Clarence H. Wodtke and Grady W. Renfro.



MARKING CORPORATE GIFT — Pat Mills, Employee Relations Division at the Paducah Gaseous Diffusion Plant, views the plaque marking Union Carbide Corporation's gift of \$25,000 to the Western Baptist Hospital. The gift, along with other donations helped the hospital improve and enlarge its facilities to meet the needs of the community.

HNL's Plant and Equipment promotes four

The Plant and Equipment Division at Holifield National Laboratory has announced the promotion of four employees.

Charles E. Blue has been promoted to foreman in the fabrication department. Blue came to the Laboratory in 1962 as an apprentice sheet metal worker and was promoted to journeyman classification in 1965. Prior to his recent promotion he was a supervisory trainee.

A native of Morristown, Blue has lived in Knoxville most of his life, and was graduated from Austin High School. He and his wife, Emma, have two children, Gregory and Dorcas. They live at 3334 Sunset Avenue, Knoxville.

Rex T. Moody was also a supervisory trainee in P & E Division before being promoted to maintenance foreman. He has been employed at the Laboratory for 11 years, holding positions in general stores, the cafeteria and as a carpenter.

Moody was born in Kingsport and was graduated from Oliver Springs High School. He and his wife, Jeanne, reside at Route 1, Kingston, and have two children, Jodie and Tamara.

Two P & E employees have been promoted to planner and estimator in the fabrication department. Delbert R. Arwood, who was a pipefitter prior to his promotion, has been with the



Nuclear Division for nearly 18 years, both at the Laboratory and at the Y-12 Plant. He has also been employed with Rust Engineering and with the Automatic Sprinkler Company of Knoxville.

Arwood is a native of Harriman and currently resides there with his wife, Juanita. They have a married daughter, Debbie; a son, Philip, who is employed in HNL's Chemical Technology Division, and one grandson.

Charles Q. Balch was a millwright in P & E before being promoted to planner and estimator. Born in Newport, Balch graduated from Karns High School and studied junior accounting for two years at Draughon's Business College in Knoxville.

He has been with Union Carbide since 1953. He formerly worked with Rohm & Haas Company, Knoxville. He and his wife, Juanita, have four children: Victor, Sammy, Jimmy and Katrina. The family resides at 717 West Meadcrest Drive, Knoxville.

Electric battery for automobiles?

The Energy Research and Development Administration is developing a new rechargeable battery for use in electric automobiles and other vehicles.

ERDA's Argonne National Laboratory near Chicago is building and testing these batteries made of lithium/aluminum and iron sulfide. They are expected to have applications for storing off-peak power from electrical generating plants.

ERDA researchers believe that a car powered by the battery could have about the same driving characteristics as present day cars, including acceleration and hill climbing abilities. The car could have a range of 100 to 200 miles, depending upon the vehicle's weight and the driving cycle used.

The high-temperature battery could be recharged in about three to five hours at home during the night when the demand for electricity is lowest. Such batteries are expected to have between five and ten times the storage capacity per pound as conventional lead-acid batteries.

As conceived, the battery should be capable of 1,000 complete charge-discharge cycles. The electrical propulsion system replaces the engine, transmission and associated equipment of a conventional vehicle.

Operating cost is expected to be low, probably less than five cents per kilowatt hour, or a few cents per mile.

Vehicle tests of such a battery could take place in two or three years. Commercial production of these battery-powered automobiles could occur sometime in the 1980's.

Yield of savings bond makes college expenses attainable

Ronald D. Smith and Alan Van Hull, Operations Analysis and Long Range Planning, compiled the following facts during the recent U.S. Savings Bond campaign. The data is based on 1974 income tax regulations.

An employee, desiring to establish an education or gift fund for a child, will find the regular purchase of Series E United States Savings Bonds both convenient and favorable from a yield standpoint. The bonds should be purchased in the child's name with the parent as beneficiary. At the end of the first year, the parent should file a Federal income tax return in the child's name listing the year's increase in bond value as income to the child. No other returns need be filed, nor tax paid, unless the child's income exceeds his unearned personal exemption (\$750). Ultimately, when they are cashed for educational expense, the interest on the bonds is income tax free. The parent should retain a copy of the child's income tax return as evidence of intent to pay the bond interest tax. The parent's gifts to the child in any one year should not exceed \$3,000 or liability for gift tax is incurred.

To evaluate Series E United States Savings Bonds as an investment for



this purpose, the required yield from alternative investment must be computed. The advantage of the Savings Bond investment plan, outlined above, is that, unlike most alternative investment plans, no income tax is paid on the interest. Thus, the required yield from an alternative investment is dependent on the parents' yearly income. The following table, which gives the required yields of alternative investment, is based on a typical family of two parents and two children. It is assumed that the parents file joint income tax returns and take the standard deduction.

SERIES E UNITED STATES SAVINGS BONDS EVALUATION AS EDUCATIONAL INVESTMENT

Annual Income	Taxable Income	Incremental Tax Rate	Required Yield of Alternative Investment*
\$10,000	\$5,500	19%	7.41%
15,000	10,000	22	7.69
20,000	15,000	25	8.00
25,000	20,000	28	8.33
30,000	25,000	36	9.38
35,000	30,000	39	9.84
40,000	35,000	42	10.34

*Required yield (%) - 6/(100 - Incremental Tax Rate)

COMPANY Service

20 25 30

Y-12 PLANT 30 YEARS

James B. Sykes, stores department; Ruth E. Andrew, laboratory operations; Hattie V. Burton, building services; Helen M. Claffey, development operations; Winfred O. Elam, plant protection department; E. Otis Rackley, general shops; and Leeman G. Pack, dispatching department.

25 YEARS

Jake O. Harvey, Jack Spears, Roy L. Chrisman, Martin W. Jones, Charles E. Gaut, John W. Powell and George G. Everett.

20 YEARS

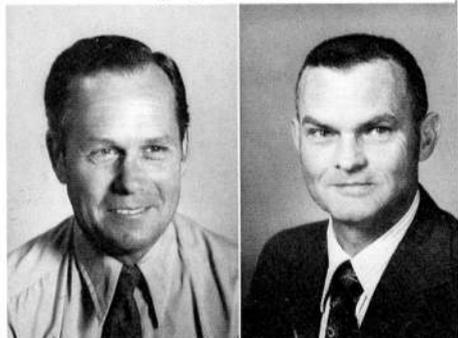
Tom H. Cordle, George H. Blakely, Morris Dupee, Floyd E. Clevenger and Lanford Duncan.



CHINESE NATIONALS VISIT THE LABORATORY — Two Chinese Nationals visited Holifield National Laboratory recently to confer with Laboratory officials on technical aspects of the power reactor program in the Republic of China. Meeting with Alex Zucker, right, associate director for physical research at the Laboratory, were, from left, Sung Ling Ho, research engineer at the Institute of Nuclear Energy Research, Taiwan; and Ji Peng Chien, director of the Institute.

Eblen, Shinpaugh promoted at ORGDP

PH 75-1137 PH 75-1044



R.E. Eblen J.C. Shinpaugh

Two new foremen have been named in the Barrier Manufacturing Division at the Oak Ridge Gaseous Diffusion Plant.

Raymond E. Eblen, a native of Kingston, has been with Union Carbide four years. He first worked at the Y-12 Plant, then transferred to ORGDP in August, 1973. Before joining UCC, he worked with the Harriman Hosiery Mill.

He is married to the former Nancy Vinyard, Friendsville, and they live on their Angus cattle farm, near Kingston. They have three children.

James C. Shinpaugh was born in Lenoir City. He has been with Union Carbide more than 30 years, 18 in the Operations Division and 12 in Separations Systems.

He is married to the former Mary Morell, Lenoir City, and they live there at Route 1. They have two children.

COMPANY Service
20 25 30

**ORGDP
30 YEARS**

Luther H. Grizzle, fabrication shop department; Howard Woody, mechanical services department; William T. Waldroup, chemical and technical maintenance; Charles L. Baldwin, material services department; Norval B. Hockman, Oak Ridge area electricity distribution; James B. Ely, shop services department; Charles R. Schrimsher, fabrication shop department; Ray J. Ellis, Reed L. Robinson and Samuel L. Gaines, U-235 separation department; Domenic S. Pesce, Engineering; Hubert Childs, grounds maintenance department; Woodrow W. Gardner, Barrier TIA manufacturing; Charles C. Hackworth, mechanical services department; and John E. Roy, chemical operations administration.

25 YEARS

J.B. Wilhoit.

20 YEARS

Billy C. Kelley.

GENERAL STAFF

20 YEARS

R. Macy Summers.

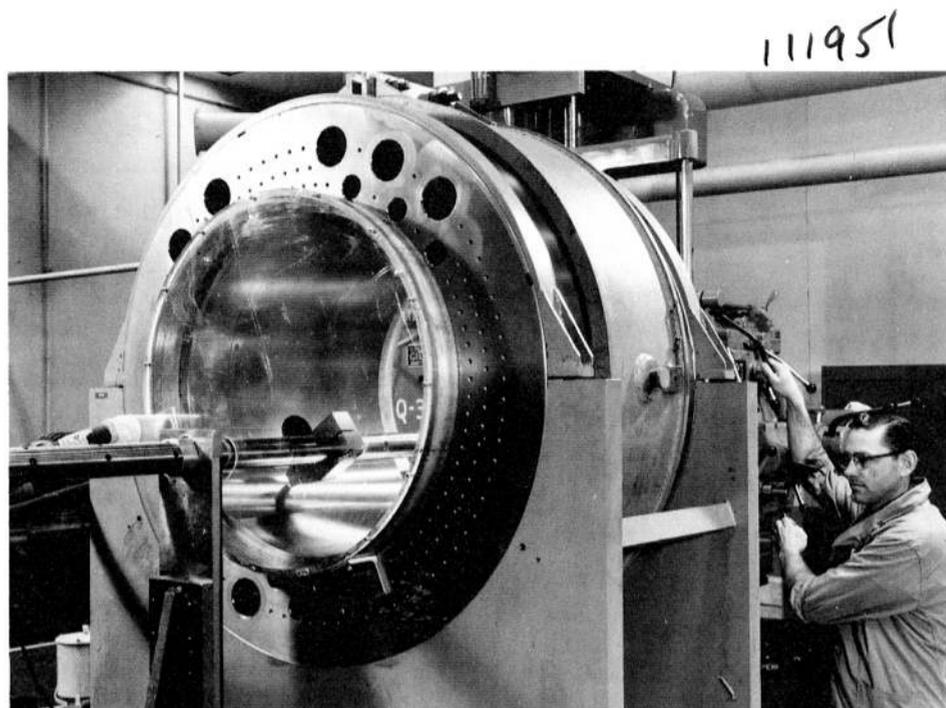
PADUCAH PLANT

30 YEARS

William T. Naive Jr., plant records.

20 YEARS

Raymond W. Davis, James T. Smallmon and Thomas J. Mayo.



ORIGINAL REFLECTOR — Andy R. Spiva, at the time a Y-12 general machine shop employee, is pictured in a 1964 photograph machining the original beryllium reflector for HNL's High Flux Isotope Reactor. The 1200-pound reflector, one of the largest beryllium components ever machined, will soon be replaced after nearly nine years' service.

Reflector replacement work begun at High Flux Reactor

For the first time since it attained its design power of 100 megawatts in September 1966, Holifield National Laboratory's High Flux Isotope Reactor (HFIR) was shut down June 3 for a major maintenance task which may last as long as six months.

James A. Cox, superintendent of the Laboratory's Operations Division which operates the HFIR, explained that the shutdown has been scheduled in order to replace the outer portion of the reactor's beryllium reflector, an operation which will require complete disassembly of the HFIR. Cox said that November 1 is the projected completion date for the change, "but of course every effort is being made to complete the job as fast as possible." Work on the project will proceed two shifts per day, seven days a week.

The beryllium reflector is an eight-inch-thick ring with an outer diameter of 43 inches, surrounding the reactor's fuel region. It is one of the largest beryllium components ever machined. The function of the reflector is to redirect neutrons, produced by the fissioning of HFIR's highly enriched uranium fuel, back into the core where they help to sustain the nuclear reaction. The neutron-reflecting property of beryllium contrasts with the neutron-absorbing quality of the reactor control rods which, in the case of HFIR, are made of europium.

Exposure causes swelling

Exposure over time to radiation causes the portion of the reflector closest to the fuel to swell more than portions farther away, which in turn produces mechanical stresses. Such stresses have caused the outer part of the reflector to crack. Cox noted that two inner parts of the reflector have been replaced previously; however, replacement of the inner portions does not involve disassembly and can be done with a brief extension of a routine shutdown, such as the refueling of the reactor every 23 days.

Preparation for the current shutdown has been under way for more than a year, Cox said. More than 100 special tools have been designed and built and special procedures have been developed, and all have been tested with reactor mockups. Nearly all of the work will have to be performed remotely under water at depths of 10 to 25 feet, and extensive use will be made of remote viewing devices such as periscopes and closed-circuit television.

Equipment disassembled

In order to keep the shutdown as brief as possible, the neutron diffraction and time-of-flight experiment equipment operated by the Solid State and Chemistry Divisions was disassembled beginning two weeks before the shutdown.

The High Flux Isotope Reactor is a light-water-cooled and -moderated flux-trap reactor; its main purpose is to produce research quantities of transplutonium elements. Until this shutdown, which comes following its 121st fuel cycle, the HFIR has generally operated an average of more than 90 percent of the time, reaching a maximum of 94 percent in 1973. "The whole reactor system, including the fuel, has been very reliable," Cox stated, "even though it has the highest power density - two megawatts per liter - of any reactor in the world."

Make it a Habit

Deaths from uterine cancer could be further reduced if every adult woman had a Pap test with her annual checkup and if postmenopausal women were checked by their doctors for any abnormal bleeding, says the American Cancer Society.

NUCLEAR DIVISION SAFETY SCOREBOARD

Time worked without a lost-time accident through May 29:

Paducah	23 Days	160,000 Man-Hours
Laboratory	52 Days	1,120,000 Man-Hours
ORGDP	24 Days	615,000 Man-Hours
Y-12 Plant	86 Days	2,628,000 Man-Hours



NSA INSTALLATION — The Oak Ridge Chapter of the National Secretaries Association recently installed their 1975 officers. From left are Frances East, treasurer; Donna Slagle, corresponding secretary; Barbara White, recording secretary; Sheila Glenn, vice president; and Ellen Queener, president. Mabel Dyer and Martha Lyle, not seen, will serve as board members.

Next Issue

The next issue will be dated June 19. The deadline is June 11.

Pointing the finger on city pollution

A team of scientists from the Energy Research and Development Administration's Pacific Northwest Laboratory (PNL), Richland, Wash., has been compiling airborne evidence they believe will put the finger on pollution from cities.

The scientific sleuths, James Young, Nels Laulainen and Larry Wendell, all from PNL which is operated for ERDA by Battelle Northwest Laboratories, are using a specially equipped twin-engine plane in the study. They have been flying through polluted air from 11 eastern and mid-western cities measuring levels of 45 to 50 pollutants, such as sulfur dioxide, arsenic, mercury, lead, selenium, vanadium, iron, sulfates, and others.

Pollution "fingerprints"

Based on previous studies, they believe the proportions of these pollutants will differ for each city, and consequently each will have a pollution profile as unique as a fingerprint. If so, pollution can be traced back to its source from great distances.

The 11 cities in the study are: St. Louis, Indianapolis, Columbus, Pittsburgh, Buffalo, Rochester, New York City, Allentown-Bethlehem, Philadelphia, Baltimore, and Washington, D.C.

The flights, which took place during December, 1974, directly measured sulfur dioxide concentrations from each city. Airborne particles were collected on filters which were carefully packed and shipped to PNL for analysis to identify both the type and amount of some of the pollutants. For instance, sulfur dioxide gas released from coal-fired power plants slowly converts to sulfuric acid and other noxious materials as it travels to great distances from the stack. These products constitute a direct inhalation hazard to man, and when brought to earth in raindrops they attack plant life and man-made structures, and acidify lakes and streams.



PARK VISITORS — A recent addition at the Clark Center Recreation Park produced this calm picture. A pair of Canadian geese, released by area researchers, took up residence at the Park and produced four goslings this spring. The geese, who mate for life, usually average only four to a family. Experts believe the four off-springs will not migrate unless a herd of wild geese fly by and the urge to join their wild brothers becomes too great.

Division Retirees

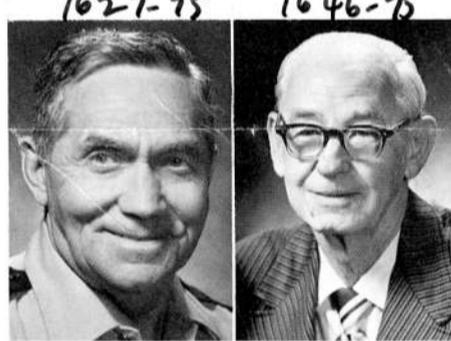


C.W. Bell H.G. Overton

Seven Holifield National Laboratory employees retired recently.

Clifford W. Bell has taken early retirement after nearly 25 years' company service. He was a senior accounting clerk in SS Accountability, Isotopes Division. He and his wife, Grace, live at Route 4, West Beaver Creek Drive, Powell.

Hubert G. Overton, who was a mechanical instrument maker in Plant and Equipment Division, joined the Nuclear Division in 1946. He and his wife, Opal, live at 236 Highland Avenue, Oak Ridge, and have three children and six grandchildren.



S.H. Ward E.A. Barrier

Samuel H. Ward ended nearly 30 years' company service. He was a desk lieutenant in Laboratory Protection and lives at 117 Kingfisher Lane, Oak Ridge.

Ellis A. Barrier was a senior engineering assistant in Instrumentation and Controls Division. He joined Union Carbide in 1959. Barrier and his wife, Evelyn, reside at 2211 Peachtree Street, Knoxville.

N75-100



R. Rowe V.C. Erickson

Richard Rowe has taken early retirement after nearly 30 years' company service. He was a janitor in Operations Division. Rowe and his wife, Jannie, live at Route 385, Powell.

Viola C. Erickson, a secretary in the Reactor Division, ended 18 years company service. She lives at 126 Florida Avenue, Oak Ridge, and has three daughters, one son and three grandchildren.

Juanita G. Gerber, a printing design clerk in the Information Division, took early retirement. She joined the Nuclear Division in 1957 and is now residing in Ormond Beach, Florida.



W.H. Foust L.E. Graham

Five veteran Y-12 employees retired at the end of May.

William H. Foust, materials shop, came with Union Carbide in 1961. He lives at Route 2, Powell.

Lawrence E. Graham, building services, ended 23 years company service. He lives at 297 Benedict Avenue, Oak Ridge.



J.K. Jenkins P.Y. Miller

John K. Jenkins, material transfer and packing, joined Union Carbide in 1948. He lives at Route 2, Kingston.

Paul Y. Miller, buildings, grounds and maintenance shops, ended 28 years company service. He lives at Route 17, Knoxville.

PATENTS Granted

To James M. Leitnaker and Terrence B. Lindemer, HNL, for "Oxynitride Fuel Kernel for Gas-Cooled Reactor Fuel Particles."

N75-95



N.C. Parrish

Neil C. Parrish, chemical services, joined Union Carbide in 1950. He lives at 504 Orchard Drive, Clinton.

PH75-1283 PH75-1117



J.E. Childs F. Kanipe

Five veterans will retire at the end of this month from the Oak Ridge Gaseous Diffusion Plant, and another will join them the end of July.

James E. Childs, who retires next month, came to ORGDP in 1952. He is in Finance and Materials, and lives at 232 Hillside Road, Oak Ridge.

Fred Kanipe, a 27-year veteran, is also in Finance and Materials. He lives at Mize Circle, Route 4, Seymour.

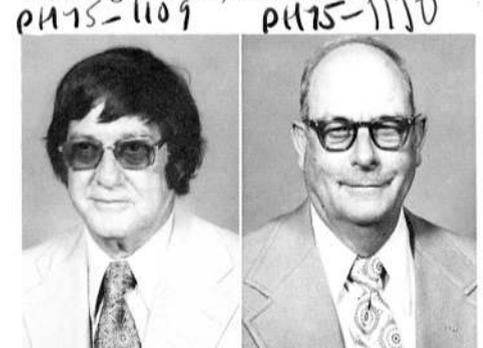
N75-1130 N75-1187



J.T. Nenon C.G. Ross

John T. Nenon, in Cascade Operations, joined Union Carbide in 1944. He lives at 111 West Lincoln Road, Oak Ridge.

Craig G. Ross, Engineering Division, first worked in Y-12 from 1958 until 1972, when he transferred to ORGDP. He lives at 4428 Washington Pike, Knoxville.



A.C. Snodgrass J.E.L. Walker

Audie C. Snodgrass, Materials and Services, has more than 30 years company service at his retirement time. He lives at 216 North Purdue Avenue, Oak Ridge.

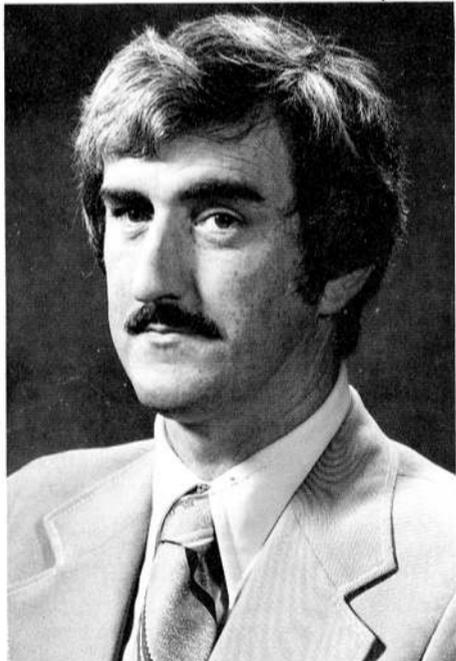
James E. L. Walker, Maintenance Division, also has nearly 30 years with Union Carbide. He lives at Route 1, Harriman.



RECIPIENTS OF AWS AWARD — G.M. Goodwin, R.T. King and J.O. Steigler, Metals and Ceramics Division at the Laboratory, received the American Welding Society's William Spraragen Award for the best research paper published in the research supplement of the **Welding Journal**. Their paper was entitled, "Relation Between Mechanical Properties and Microstructure in CRE Type 308 Weldments." The award consists of a cash honorarium and certificates. The researchers are examining a weld in piping similar to those in LMFB sodium containment systems.

HNL's McAfee earns plaudits for outstanding research work

160451



Wallace J. McAfee

Wallace J. McAfee, a Holifield National Laboratory research engineer, has received a national award from the Society of Experimental Stress Analysis for writing the outstanding research paper of the year in the field of engineering mechanics.

The Hetenyi Award was presented to McAfee May 15 at the Society's Annual Spring Meeting banquet in Chicago. The award, in the form of a framed certificate, is named in honor of an outstanding theoretical and experimental mechanics researcher, Micklos Hetenyi.

The title of the paper was "Scattered-Light Flow-Optic Relations Adaptable to Three-Dimensional Flow Birefringence." It was co-authored by Professor H. Pih of the Engineering Science and Mechanics Department at The University of Tennessee.

McAfee resides at 102 Norman Lane, Oak Ridge.

RIDES — RIDES — RIDES

Y-12 PLANT

Riders wanted from Glen Alpine School section, near Norris, to North Portal, straight day. Clyde Cook, plant phone 3-5482, home phone-Norris 494-9532.

RIDE from Karns area to Y-12 Central or West Portal, 8-4:30 shift. Gary Hennon, plant phone 3-7325, home phone Knoxville 690-2088.

Scott gets UT outstanding engineering alumnus award

1654-75

Charles D. Scott, Chemical Technology Division at Holifield National Laboratory, is one of the recipients of The University of Tennessee's "Outstanding Engineering Alumnus Award." The award was presented by the College of Engineering at its annual honors banquet.

Scott is a native of Chaffee, Mo. He received his bachelor's degree in chemical engineering from the University of Missouri, and his M.S. and Ph.D. degrees in chemical engineering from The University of Tennessee. He joined the Laboratory staff in 1957. Scott currently is chief of the CTD experimental engineering section and program manager of several bio-technology development programs (multidisciplinary efforts spanning four division at the Laboratory).

Scott is chairman of UT's Committee on Biomedical Engineering Education. He has served as lecturer in chemical engineering and part-time professor of biomedical engineering at the University.

Awarded several patents for his inventions, Scott has written more than 60 scientific and technical papers in the area of biochemical technology, clinical laboratory instrumentation, heterogeneous kinetics and energy production. In 1971, Scott and members of his staff received the National IR-100 Award for development of the Ultraviolet-Analyzer.

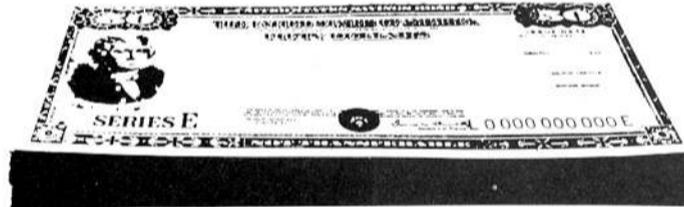


Charles D. Scott

Scott organized and serves as co-chairman of an annual symposium series, Automated Analyses in the Clinical Laboratory, which is published in **Clinical Chemistry**.

Scott is a member of Alpha Chi Sigma and Sigma Xi honorariums. He also holds membership in several professional organizations. He resides with his family at 204 Louisiana Avenue, Oak Ridge.

Join the Payroll Savings Plan.



The sooner you start, the more you'll have.

175-103



DISCUSS WASHINGTON WORKSHOP — Richard D. Jacobs, who recently attended a Washington Congressional Workshop as a Union Carbide Scholar from Oak Ridge, discusses his experiences with Roger F. Hibbs, President of Union Carbide Corporation's Nuclear Division. Jacobs, son of Mr. and Mrs. Sheldon C. Jacobs, 100 Wilderness Lane, Oak Ridge, was selected for the honor by the faculty of Oak Ridge High School.



ACCEPTS CRUSADE CHECK — Y-12er Margaret Stewart, second from right, accepts a check for \$100 from the Veterans' Club at Roane State Community College. The Cancer Crusade check was presented by Owen Portwood, club president; as Wayne L. Breazeale, veterans' affairs coordinator at Roane State, looks on from the right. Other members of the club joined in the operations of a concessions stand at a recent talent show held at Roane State's gymnasium.

Nuclear Division employees spark cancer drive in Roane

In 1974, the Cancer Crusade in Roane County netted a mere \$200. This year already, more than \$1,750 has been raised, thanks to the imagination of two Y-12 employees.

Combined talents

Robert Clouse, Alpha 5 assembly; and Margaret Stewart, office services administration, combined talents to stage a giant talent parade recently. With the help of many fellow Carbide employees, the two organized, promoted, produced and directed the big show. Roane State Community College donated the stage, and the Veteran's Club there volunteered to man concession booths and allow the proceeds to go to the Cancer Crusade.

A crowd estimated at 2,000 attended the festivities, as Clouse emceed the show. Y-12er Bob Ludwig acted as stage manager.

Others contributed

Other Union Carbide employees donating their talents included Larry Austin, Jo Ann Isham, Larry Phillips, Neal Smith and Ray Stewart, all of Y-12; Edith Jones and Fred Bertrand, Laboratory; John Amburgery, Tom Zava, Dewey Sharp, Bea and Lindy James, David Gilliland and Noel Nugent, all of the Oak Ridge Gaseous Diffusion Plant. Al Burris, central employment, also participated in the talent show. Sandy Alley, daughter of ORGDP's Eugene B. Alley, and Jeri Zurcher, wife of Y-12's N.E. Zurcher, were important soloists as well. Peggy W. McConnell, Energy Research and Development Administration, lent her talents.

The Stewarts, and the other Carbiders as well, were pleasantly surprised with the success of their efforts. Already plans are being formulated for more activities in the Roane area.

"Most of the Carbiders volunteered their talents," Mrs. Stewart said. "The response was great."

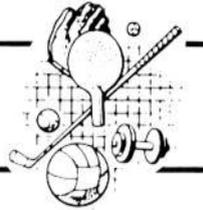


MAGIC ACT — Austinini, Y-12's Moonshine Miracle Man, is flanked by two of the Tennessee Moonshine Cloggers, Diana Callahan, left, and Debra Embleton, right, who works at ORGDP. The three were part of the talent recently volunteered to participate in a giant talent show to benefit the Cancer Crusade.

QUALITY ASSURANCE is...

...asking if you don't know.

RECREATIONOTES



ALL CARBIDE SOFTBALL

The Nuclear League, with a 16-team strong lineup, fired off its initial guns recently, and five teams emerged winners to keep clean slates.

The Atomic League, with nine teams, sees the Computes and Shifters up front with no losses yet.

League standings follow:

NUCLEAR LEAGUE

Team	Won	L
Rats	3	0
Al's Pals	2	0
Artie's Army	2	0
Knuckle Balls	2	0
The Pubs	2	0
Avengers II	3	1
Bio Rejects	2	1
Labor Gang	1	1
Bombers	1	2
Mc's Pack	1	2
The Mad Batters	1	3
Alphas	0	1
Odds & Ends	0	2
Mama's and Papa's	0	2
The Outlaws	0	2
TAT	0	3

ATOMIC LEAGUE

Computes	2	0
Shifters	2	0
E. S. D.	3	1
Gas House Gang	2	1
Raiders	1	2
Red Barons	1	2
Snakes	1	2
Supersonics	1	2
K-25 B Shift	0	3

Bear Creek Repairs

Y-12 employees using Bear Creek Road will be temporarily inconvenienced during most of June, as modification of the road will be in progress.

Commuters are requested to use extreme caution during this period of construction. A by-pass will be in effect part of the time, and markings, signs, etc. will be utilized for the optimum safety of the commuter.

The construction is being effected to provide safer access onto Bear Creek Road from feeder roads.

HIGH POWER RIFLE LEAGUE

Jack Spurling, Y-12, won the third match of the All Carbide High Power Rifle League with a 473 out of 500. Anthony Abbatiello, ORGDP, was second with 464; and Don Kiplinger, Laboratory, came in third with a 462.

Other scores follow:

L. Weston, HNL	456
C. Brewster, Y-12	446
J. Crowell, ORGDP	435
B. Searles, Y-12	394
M. Toth, HNL	333
L. Schlemper, ORGDP	311

PRESIDENTIAL SPORTS AWARD

Louise Rogers, Y-12's Assembly Division, has been awarded a Presidential Sports Award in equestration. (To the uninformed this is skill on horseback.)

WANTED



LABORATORY

JOIN CAR POOL from vicinity of Nebraska Avenue (west end of Oak Ridge), to either portal, 8 or 8:15 a.m. shift. Richard Kerchner, plant phone 3-6933, home phone 482-1975.

JOIN CAR POOL from Ft. Sanders - UT Campus area, Knoxville, to either portal, 8:15 shift. Charles Watson, plant phone 3-6933, home phone 523-1207.

JOIN OR FORM CAR POOL from Whittle Springs area, Knoxville, to East Portal, 8 or 8:15 a.m. shift. Janet Nunley, plant phone 3-6931, home phone 637-1695.

ORGDP

CAR POOL member from Bruner's area, Oak Ridge, to Portal 4 or 8 at ORGDP, 8 a.m. - 4:30 p.m. Steve Grider, plant phone 3-3555.

Tee-Off Time Application for June 28

(Check Appropriate Plant)

- ORGDP — Wallace Hills
- Y-12 — Dead Horse Lake
- Laboratory — Quail Creek Country Club Check

LEADER _____

Phone _____ Bldg. _____

Time Preferred _____

COMPLETE AND RETURN TO YOUR RECREATION OFFICE

Entries must be received prior to drawing on June 25, 2 p.m.

ORGDP—Building K1001—C-Wing—MS 122

Y-12—Building 9711-5

ORNL—Building 2518

Tee-off times for all tournaments will be drawn on Wednesdays prior to each Saturday's tournament. Golfers are responsible for reserving their own carts by contacting the pro shop following drawing for tee-off times.

The value of daydreaming

(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning their 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, or call the news editor in your plant, and give him your question on the telephone.)

By T. A. Lincoln, M.D.

If asked by a man-on-the-street reporter, most people would probably say that daydreamers tend to be lazy and generally ineffective people. Our society puts a premium on action in our work and play, and constant interaction with other people is given high priority. Even personal contemplation has become organized into a discipline and given an impressive title called "transcendental meditation." The purpose of this piece is to defend the common every-



day dreamers and to suggest that fantasies can not only be extremely pleasant, but can be therapeutic.

Dr. Jerome L. Singer, professor of psychology at Yale University, is one of the staunchest defenders of daydreamers. He defines a fantasy as a "stimulus-independent mentation." In other words, it is a thought that is consciously generated without any external stimulus. Much of our thought is devoted to responding to another person, situation, challenge or sensory input through the eyes, ears or other sensory organs. A fantasy is consciously generated but requires no sensory input from the environment. It occurs while awake and is not related to the dreams which occur while sleeping.

Can be a hazard

Obviously daydreaming can be hazardous. If, when a person leaves the plant to drive home, he generates a fantasy that he is a Grand Prix race driver, he could unconsciously act out his thoughts and drive too fast.

Daydreaming often occurs when performing a dull repetitive task, even in the din of a factory. Some unexplained accidents may be caused by daydreaming.

X-rated dreams

If a TV monitor could be installed on the back of the head which would show what a person is thinking, it probably would be "X-rated" much of the time. Fantasies are intensely personal thoughts and few people will discuss them even with a psychiatrist.

A fantasy can be a marvelous safety valve. For example, when a person is jealous or angry at a work supervisor, he may fantasize his boss's sudden death and his promotion to the victim's job. The violence of the fantasy helps discharge his hostile feelings and enables the dreamer to return to a more acceptable attitude. The feelings that people are allowed to express in public generally have to be

heavily censored. Anger, jealousy and resentment often can only be released as mild sarcasm.

The ability to fantasize can be cultivated. Probably its most effective use is to help going to sleep. When a person goes to bed still stimulated by the day's pressures, generating a dream diverts attention to a pleasant experience, allowing relaxation and eventual sleep.

Sexual fantasies

Sexual fantasies are particularly valuable. One can quickly place himself or herself in a situation which might be totally impossible in real life. During construction of the fantasy, considerable time can be spent imagining the locale, the plan, the content, etc., so that before the sexual accomplishment occurs, the dreamer has often drifted off to sleep.

Insomniacs can fantasize getting into a warm bed in a luxurious first class compartment in a train and pulling out of the depot into a cold night. The clackety-clack of the train wheels and the faintly heard horn of the diesel engine will put to sleep anyone who can remember traveling that way. If not a train, how about dreaming about a cozy bed on a luxurious houseboat lying quietly in a cove on the Tennessee River?

Inhibiting daydreaming

Dr. Singer says that daydreams can help find answers to "solvable" personal problems. During daydreaming, or often afterwards, a solution may become apparent. The feeling or change in attitude may be allowed to "surface" into consciousness, and even though the content of the fantasy may have no obvious relationship to the problem, the feeling expressed opens a door into an area of possible solution.

Constant preoccupation with visual or sensory stimuli, such as TV or reading, inhibits daydreaming. A person needs some time alone when he can just think peacefully. Families with many young children will protest and say, "No way! The only escape I have is when I go to sleep." But is that really true? What about those times alone while cooking a meal? How about the privacy of the bathroom? Fantasies can occur while busy. While pushing the cereal into your infant's mouth, you might fantasize that your son grows up to be a strong, handsome young man with great affection for you.

Fantasies welcomed

Fantasies are especially helpful to middle-aged people who realize that they no longer have many options.

Employees honored for scouting service



J.E. Bigelow



J.T. White



T. Goodpasture

Three Nuclear Division employees recently received the Silver Beaver Award, the Boy Scouts of America's highest honor for long and outstanding service to scouting. The awards were presented at the annual banquet of the Great Smoky Mountains Council.

John E. Bigelow is materials coordinator in the Transuranium Processing Plant at Holifield National Laboratory. He has been active in scouting for 14 years with Oak Ridge's First United Methodist Church Troop and Woodland Pack 328. Bigelow has served as the Mississippi District commissioner and as District chairman. He is now a member of the Council's Executive Board.

Tom Goodpasture, an analytical chemist in Product Certification at Y-12, has served as a cubmaster, assistant scoutmaster and scoutmaster during his 12 years in scouting.

He has been active with troops both in Oak Ridge and Oliver Springs and is currently scoutmaster of Troop 220.

J.T. White is a 20-year veteran of scouting, having worked with troops in Chattanooga, Oak Ridge and Knoxville. He is a wood badge-trained scoutmaster currently serving Troop 16 of Concord United Methodist Church and is camping chairman for Toqua District, Great Smoky Mountains Council. In the past, White has served the Toqua District as advancement chairman, leadership training committee member and District vice chairman. He has been an institutional representative for Troop 16 and a member of the Council's Appalachian Trail Committee.

White is a graphics designer in the graphic arts department of HNL's Information Division.

Savings Plan-Personal Investment Account

Recent unit values:

	Fixed Income Fund	UCC Stock	Equity Investment Fund
January 75	11.12	41.81	6.88
February 75	11.20	46.90	7.38
March 75	11.27	54.11	7.64
April 75	11.35	58.52	8.04

Note: Fixed Income Fund unit values reflect interest additions to achieve the guaranteed effective annual interest rate of 8.55% for 1975. 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 value - and the price at which new units are added that month.

The American Cancer Society helps train young doctors and dentists in cancer diagnosis and management. Your contribution during the fund-raising crusade will continue this vital effort to help make sure that the cancer patient has the best possible care.

Their future is controlled by the past and prospects for great change are slim. A fantasy can be a welcome escape from reality which makes the humdrum existence more tolerable. The fantasies of most people actually improve their total effectiveness. Obviously, if they become a substitute for dealing with reality, they can become pathological.

Daydreaming is useful. If you do it now, and feel guilty, relax. You are lucky. If you don't, give it a chance. It's far better than tranquilizers or alcohol, both of which tend to turn off this healthy outlet for life's complex feelings.

Calendar of EVENTS

TECHNICAL

June 6

Solid State Division Annual Information Meeting; Laboratory visits in Building 3025.

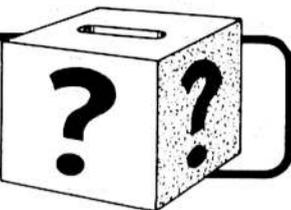
June 10

Biology seminar: "Biological Applications of Liquid Scintillation Counting - New Thoughts on Sample Preparation." Y.A. Kobayashi, New England Nuclear. 3 p.m. Tower I Conference Room.

Hit it Early

Cancer is most curable when it's caught early and treated promptly. The American Cancer Society urges everyone to have an annual checkup even when feeling great.

QUESTION BOX



(Continued from page 1)

mitted to help build their benefits. Young employees should be given the option of contributing to the Pension Plan as a hedge against inflation. Also, employees in the defunct retirement plan should be given the option of transferring Retirement Plan contributions to the Pension Plan, and a formula worked out to increase benefits.

ANSWER: The Personal Investment Account was introduced and the Savings Plan improved in other ways in 1973 to fulfill this very purpose. An employee with at least three years' service can direct all or part of his basic Savings Plan deductions to the Personal Investment Account. He may also add an additional 5 percent of his earnings to this account. Numerous payout options are available, including a lifetime annuity. The Personal Investment Account is strongly recommended as a means of supplementing one's retirement income.

It is not possible to transfer retirement contributions directly to the Pension Plan as you suggest. There is a way of accomplishing this in time, however. If an individual is not adding the additional 5 percent supplement to the PIA, he is building up a credit and can later put cash directly into the Plan to offset this credit. At the appropriate time, such an employee could withdraw from the Retirement Plan and put the cash he receives into the Personal Investment Account.

QUESTION: A few months ago, Y-12ers were encouraged to form car pools (Pool It!) to conserve gasoline. The Company went to a huge expense to get information, feed it into computers, give the print-outs to interested employees, and promised to switch personnel where possible. Now, after all this expense, some of us have been forced to change to a group (under protest) where we will be driving more than twice as many miles per week than we were in our previous car pool. Over 900 additional gallons of gasoline per year will be used in our present setup.

My question is: Is management aware of this kind of "Money and Energy Conservation" program?

ANSWER: We are unable to identify the location or nature of the "group change" referred to in your anonymous question. The reference to "twice as many miles per week" implies an interplant relocation. Personnel transfers and relocations, as well as changes in working hours, occur for many reasons including organization changes and/or work loads at different locations. Employee convenience and preference is given consideration when suitable alternatives exist. In the final analysis, however, it is necessary that we have the right people at the right location and on the right shift to do work that has to be done.

QUESTION: Is it proper or improper to use the plant mail for distributing such things as the PSA Newsletter? To my knowledge the other "unions" do not engage in such practices.

ANSWER: The plant mail is intended to be used for distributing communications and materials that are part of the installations' business. Using the mail for communications of outside groups, not a part of our business, is not proper.

Energy Consumption Cut

(Continued from page 1)

Although these and other energy saving practices have been used, according to Oliphant, the biggest potentials for saving energy are in heating and cooling. On a nationwide basis, about 16 percent of all energy is used for heating and cooling commercial and industrial buildings. In the Nuclear Division, as in other government installations, the policy is to "use no energy to heat above 65-68°F in the winter or to cool below 78-80°F in the summer." There is an energy savings of about three percent for every degree that the thermostat is lowered in the winter and raised in the summer.

\$1 million on electricity

Oliphant estimates that on practices involving electricity, the Nuclear Division saved about \$1 million during the past year. Electricity represents about 68-70 percent of total energy used by the Division. These figures are exclusive of energy used to carry out separative work in the gaseous diffusion plants.

A recent experiment at the Laboratory indicated that electrical energy consumption in one building has been reduced to 17 percent of the former level. The two 16-hour tests in Building 2518 involved a comparison of energy consumption using previously operated equipment (fluorescent tubes, portable heaters, etc.) with currently operated equipment in the building.

Primary factors in the reduction included: Reduced lighting and temperature levels; timer-controlled circuits on building heating systems; timer-controlled circuits on coffee-making machines and hot water heaters; addition of storm sash and exterior-wall insulation; removal of portable heaters; sealing of crevices and cracks around doors and windows, and weather stripping.

Nuclear Division employees are urged to continue in their efforts to conserve energy. Some of the things we can do are:

- Turn off lights in offices and laboratories if we will be away for more than half an hour,
- Request that thermostats be set according to Division guidelines (then, dress for comfort),
- Use plant buses and shuttle service when possible,
- "Pool it" both between plants and to and from home.

Pearlstein will coordinate HNL solar energy research

The appointment of Robert M. Pearlstein as coordinator of solar energy research at Holifield National Laboratory has been announced by Murray W. Rosenthal, associate laboratory director for advanced energy systems.

Pearlstein will be responsible for integrating the Laboratory's overall solar energy research effort, including related activities in the areas of biomedical, environmental, and physical research.

A biophysicist, Pearlstein joined the staff of the Biology Division in 1967, after a year as a National Science Foundation postdoctoral fellow. For three years he was leader of the Division's photosynthesis and solid state biophysics group.

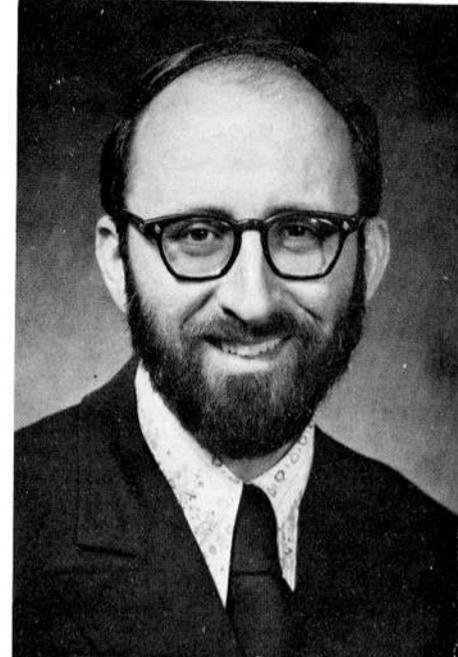
Now in chemistry

He is now a member of the Chemistry Division where, in addition to his responsibilities as solar program coordinator, he will lead a project in biophotolysis. This research as part of the solar-energy program involves the production of hydrogen from water, using green plant materials to capture and convert the sun's energy catalytically.

Within the new U.S. Energy Research and Development Administration, which came into being in January, solar energy research is the responsibility of John M. Teem, assistant administrator for solar, geothermal, and advanced energy systems.

The ERDA solar-energy program is planned to encompass research and development both on direct solar conversion technologies (including solar heating and cooling and bioconversion) and on solar electric applications such as photovoltaic, ocean thermal, solar thermal, and wind energy conversion to produce electric power either directly or indirectly from solar energy.

1613-75



Robert M. Pearlstein

Originally from Arlington, Va., Pearlstein received his bachelor's degree in physics from Harvard University in 1960, and his Ph.D. in biophysics from the University of Maryland in 1966. In 1962-63, he did research at the Marine Biological Laboratory in Woods Hole, Mass. Since coming to Oak Ridge, he has also served as a lecturer in the University of Tennessee-Oak Ridge Graduate School of Biomedical Sciences.

Pearlstein is a member of the Biophysical Society, American Society for Photobiology, Sigma Xi, American Physical Society, and American Association for the Advancement of Science. He currently serves on the Publications Committee of APS's Division of Biological Physics.

Pearlstein and his wife, Linda, reside with their two children at 831 West Outer Drive, Oak Ridge.



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