

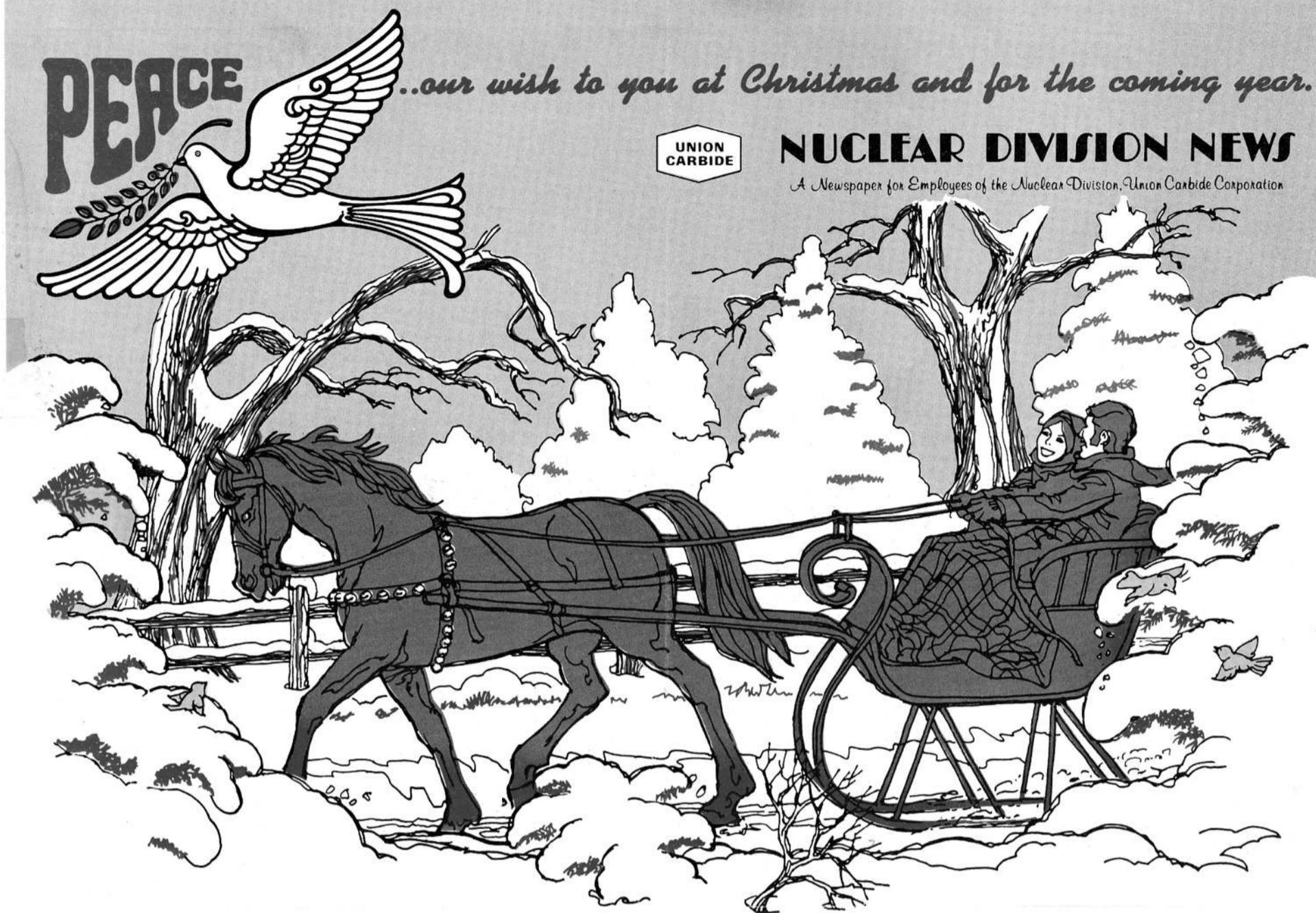
PEACE

...our wish to you at Christmas and for the coming year.

UNION
CARBIDE

NUCLEAR DIVISION NEWS

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



Vol. 5 - No. 24

December 19, 1974

Benefits task force presents recommendations

Recommendations of a Benefits Task Force were reviewed with Roger F. Hibbs, Nuclear Division President, at a recent meeting in his office.

The committee was charged with the following tasks: (1) Studying the comments made by salaried employees concerning benefits in the recent Attitude Survey; (2) becoming familiar with the various plans and policies in the Company's benefits package; (3) obtaining and analyzing data from other companies on their benefits package; (4) making recommendations to management for improvements in the benefits program based on conclusions drawn from the Attitude Survey, input from other employees and from personal experiences, and reactions gained by exposure to the administration of these plans and policies.

At the outset of their deliberations the Task Force members were advised that the Nuclear Division's benefits, like those of all other divisions, are tied to Union Carbide programs and no division can, on its own, restructure the Corporation's benefit package. However, the Corporation has always been interested in, and responsive to, input from the various divisions on the benefit program.

For example, the principal impetus for modifying the Savings Plan came from the Nuclear Division.

The committee's recommendations cover the following components of benefits package: retirement, savings plan, insurance, vacation, educational assistance, maternity leaves, personal time off with pay, counseling services, and sabbatical leave.

In reviewing the committee's activities, Hibbs pointed out that in the Nuclear Division, 37 cents is paid in fringe benefits for every payroll dollar. About 13 cents of this is included in the payroll dollar in the form of holiday pay, vacation pay, etc. The other 24 cents is an additional expenditure to finance benefits such as pensions, hospitalization insurance, etc. This compares with 27 cents and 14 cents respectively for all AEC national laboratories and academic research contractors as published recently by the Lawrence Livermore Laboratory.

"In this area, as well as others, judgment must be exercised regarding where money is spent. We are continually evaluating whether we should invest our resources in wages and salaries, benefits, or jobs," Hibbs said. "Quite frequently we find that we cannot accommodate our desires since under fixed budget limitations we have no source of funds."

Worthwhile recommendations

Hibbs told the committee members that many of their recommendations were worth additional consideration

at the Corporate level. Among these was a recommendation that an employee's pension be determined by using the best five years' salary of his employment instead of the "best five of the last 10 years" formula which is now used.

Also recommended was providing an option to retirees for deferring certain terminal payments (such as accrued vacation) to the next taxable year to ease the tax burden. "This is a good idea and we could do it," Hibbs said. He cautioned, however, that the Internal Revenue Service might still consider that income earned in any given year should be included in that year for tax purposes.

The committee recommended changing the pension vesting provisions so that they not be restricted by age. Hibbs explained that Congress has passed a law which, among other things, covers vesting and that the Corporation, acting in response to the law, will also be responsive to the committee's recommendation.

Retirement counseling

Also proposed was that the Division establish a uniform retirement counseling program for employees. Members felt that some locations were doing a better job than others. Hibbs felt that this recom-

Members of the task force committee on "Employee Benefits" were: Ardyce J. Ballard, Secretary, Maintenance Division, Paducah Gaseous Diffusion Plant; George T. Hull, Division Superintendent, Cascade Operations, Paducah Gaseous Diffusion Plant; J. Frank Jamison, Division Superintendent, Finance, Materials and Service, Oak Ridge Gaseous Diffusion Plant; Gerald F.R. Johnson, Field Engineer, Plant and Equipment Division, Oak Ridge National Laboratory; Dr. Thomas A. Lincoln, Director, Health Division, Oak Ridge National Laboratory; William E. McLendon, Senior Laboratory Technician, Laboratory Division, Oak Ridge Gaseous Diffusion Plant; Ruby A. Miller, Public Relations Representative, General Staff, Oak Ridge National Laboratory; Sheila L. Purnell, Secretary, Classification and Information, Y-12 Plant; Harwell F. Smith Jr., Division Superintendent, Product Engineering and Scheduling, Y-12 Plant; William E. Williams, Employee Benefits Manager, General Staff. Max W. Cherrington, Union Carbide, New York, assisted the task force in obtaining necessary information concerning Union Carbide Corporation's benefit programs and those of other large organizations.

(Continued on page 3)

Women operators employed at gaseous diffusion plants

Throughout the Nuclear Division women are moving into jobs which have been traditionally held only by men. One example of this movement may be seen at the Paducah and Oak Ridge gaseous diffusion plants. Although the Y-12 Plant has hired women as chemical operators since the early days of Oak Ridge, the gaseous diffusion plants hired their first women operators less than two years ago.

Women showed little interest in jobs as operators previously because of the isolation of many of the facilities, the rotational shift work and lifting requirements. "Our policy is to present women with the facts about the job and let them decide whether or not they are interested," said L. James Davis, Training Coordinator in the ORGDP Operations Division.

Chemical operators are required to take both classroom and on-the-job training. Classroom training includes such subjects as industrial safety and hygiene, health physics, nuclear safety and fire protection. Emphasis is placed on a knowledge of the characteristics of various chemicals and how to safely use them. Information is also provided on the equipment, processes and facilities within the plant. Skill must be demonstrated in the operation of vehicles such as forklifts, overhead cranes, straddle-haulers, etc.

Five interviewed

ORGDP now has seven women operators and Paducah has three. Five of the ten women were interviewed to learn of their reactions to working in a previously men-only job.

Karen Tucker, Paducah, was one of the first women to be hired as an operator. She was employed as a trainee about 19 months ago. She admits that there was quite "a period of adjustment," both for her and for the men with whom she worked. Tucker recalls shedding tears of frustration



OPERATORS OPERATE HEAVY EQUIPMENT — One of the duties of a chemical operator is to demonstrate skill in operating different types of vehicles. On the left Mildred Quarles is shown with a fork-lift machine. On the right, Jenne M. Jackson prepares to leave a straddle-hauler after completing her task. Both women are employed at the Oak Ridge Gaseous Diffusion Plant.

every day after she left work. "The guys weren't actually mean to me, they just sort of ignored me which can be almost as bad," Tucker said.

Any hostility or indifference that may have existed had vanished by the time Shirley Shumpert and Marion Cole joined the operations staff about seven months ago. "Most of the men are nice and very cooperative," says Shumpert. "They expect us to do our job, but are willing to help when we run into problems."

Attitude plays role

Betty C. Silvey was one of ORGDP's first women operators. She worked as a cashier at the plant before bidding into the job about 14 months ago. Silvey recalls, "frankly, I was terrified at first, but it has turned out to be a great experience." "I

really look forward to coming to work every day," she said.

Mildred Quarles is one of the most recent additions to ORGDP's operator staff. During the war years she worked at the Y-12 Plant as a chemical operator, but finds no resemblance in the two jobs. Quarles feels that a person's attitude plays a large role in whether or not they will be successful in any new job. "The main requirement is a willingness to do the work," she said.

When asked their reasons for taking a job that women had not held before, the number one reason was unanimously **money**. In second place was "challenge" and then job satisfaction and "I enjoy working with men."

All five of the women interviewed have children. Most of the children are school age or older. None of the women have experienced any real hardships because of job and family conflicts.

The other women operators at ORGDP are: Jeanne M. Jackson, Alice L. Guilmette, Alma K. Springs, Phyllis Rouse, and Diana Edwards.

ORNAL BOWLING

A League still belongs to the Woodchoppers, several ahead of the ORAU team. The ORAU conclave, however, boasted recent 698 handicap series rolled by Don Hurtubise.

C League news was that J. D. Wolfenbarger rolled a big 244/271 game recently. The Damagers are quite a few steps in front of the Remkeys still.

The ORNL Ladies League puts the Pickups ahead of the Bowling Aces. The Bowling Aces hold high singles thus far with an 829, while the HPettes has a 2351 series.

The Oops team still controls the Carbide Family Mixed League. Del Ducay's 558 and Tillie Plaza's 554 were highs recently.



PADUCAH'S FIRST WOMEN OPERATORS — Disassemble, clean and reassemble are activities involved in one of the processes which must be followed by operators. From left Marion Cole, Karen Tucker and Shirley Shumpert are shown cleaning and reassembling assault masks which are worn in areas where there is possibility of an unnatural atmosphere. The trio above represents the first women to be hired as operators at the Paducah Gaseous Diffusion Plant.

BIMONTHLY COLLOQUIUM

For the benefit of staff members living outside of Oak Ridge, the January Bimonthly Colloquium will be held at the Oak Ridge National Laboratory.

The Colloquium will be held January 23 at 3:30 p.m. in the Central Auditorium of Building 4500 North. Dave Novelli, Biology Division, will speak on the subject, "A Factor for the Transfer of Cell-Mediated Immunity to Control Cancer."

Following Novelli's talk, questions will be directed from the floor to both Novelli and Herman Postma, Laboratory Director. Questions of general interest may be sent in advance to B. K. Lyon, Room 149, Building 4500N.

NUCLEAR DIVISION NEWS



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NUCLEAR DIVISION

James A. Young, Editor, Y-12
Ext. 3-7100
Ruby Miller, Assoc. Editor, ORNL
Ext. 3-6421
Keith Bryant, Paducah
Bell 369
Doug Carter, ORGDP
Ext. 3-3434

— Member —

APPALACHIAN INDUSTRIAL
EDITORS' ASSOCIATION
INTERNATIONAL ASSOCIATION OF
BUSINESS COMMUNICATORS

Office
Post Office Box Y
Oak Ridge, Tenn. 37830

Task force recommendations

(Continued from page 1)

mendation was worthwhile, as was a suggestion that all benefits that applied to retirement be put together in one publication.

Among the other Task Force recommendations which Hibbs said were worthy of further study were:

1. Improve the current surgical schedule for Hospitalization insurance to bring it closer to conformance with the rising cost of medical service.

2. Remove the limitation that payment for courses taken under the GI Bill eliminates that course as an eligible expense under the Educational Assistance Program.

3. Reimburse employees the second 50 percent for completion of a bachelor's degree under educational assistance. Currently this is done for completion of master's and doctor's degrees.

4. Remove the waiting period for initial enrollment in Group Hospitalization and Major Medical insurance plans.

5. Coverage of normal maternity expenses under the Major Medical insurance plan.

Still another task force recommendation which Hibbs said appears valid is one which would enable employees to carry over a certain amount of vacation even though they do not have 25 years of service.

Cost prohibitive

One of the Task Force recommendations dealt with a cost-of-living adjustment factor on pensions. Hibbs said that he could not support this since the cost would be prohibitive. "We have discussed this with our consulting actuary who stated that he could not make an estimate of the cost, other than that it would be extremely expensive," he said.

Patrick C. Fourney, Division Employee Relations Manager, was asked by Hibbs to investigate some of the recommendations that might be implemented at the Division level. Included are: making retirement counseling and financial counseling for retirement planning more uniform at all four facilities; publishing a brochure containing all benefits and payments that are available to employees at retirement; investigating the possibility of having benefits representatives located in selected divisions throughout the Nuclear Division and providing guidelines for more standard application of the "personal time off with pay" policy.

Statement to be mailed

Fourney stated that toward the end of January, each employee will receive a "John Q. Carbide" statement. This statement is an individualized report on various benefits provided in case of medical expenses, disability, death, and retirement. It will also give the total cost the Company pays for these benefits.

Fourney reported that a four-plant committee had already been established to study the personal leave policy, and that plant managers and supervisors will receive some general guidelines in the near future.



"BENEFITS" TASK FORCE — Members of the task force committee on Employee Benefits met recently with Roger F. Hibbs, Division President, to discuss their recommendations to Management. From left are William E. McLendon, Harwell F. Smith Jr., Patrick C. Fourney (Division Employee Relations Manager), Sheila L. Purnell, William E. Williams, J. Frank Jamison, George T. Hull, Ardyce J. Ballard, Ruby A. Miller, Thomas A. Lincoln, Gerald F.R. Johnson and Hibbs.

'Our report to you' - Nuclear Division benefits task force

As a result of the Attitude Survey, the group of weekly and monthly salaried employees listed below were appointed by Nuclear Division management to study the Employee Benefits Plan, with the objective of making recommendations both for plan improvements and methods for disseminating information on current plans.

Ardyce J. Ballard and George T. Hull, Paducah Gaseous Diffusion Plant; J. Frank Jamison and William E. McLendon, Oak Ridge Gaseous Diffusion Plant; Gerald F. R. Johnson and Thomas A. Lincoln, ORNL; Sheila L. Purnell and Harwell F. Smith Jr., Y-12 Plant; and Ruby A. Miller and William E. Williams, General Staff. Max W. Cherrington, Union Carbide, New York, assisted the task force in obtaining necessary information concerning Union Carbide Corporation's benefit programs and those of other large organizations.

The Task Force carefully studied all major Nuclear Division plans and collected comparative information from those companies listed below.

Oak Ridge area: Tennessee Valley Authority, Alcoa, Tennessee Eastman and U.S. Atomic Energy Commission.

Paducah area: Penwalt Corporation, B.F. Goodrich, Westvaco and General Tire.

AEC Contractors: Argonne National Laboratory, Lawrence Livermore Laboratory, Los Alamos Scientific Laboratory and Goodyear Atomic.

National Companies: General Motors and I.B.M.

It is the intent of this article to report the findings and major recommendations of the Task Force in very abbreviated form. A much more detailed report has been submitted to Nuclear Division management and a

"The granting of personal leave will always have to be a judgment factor," Hibbs explained, "because no set policy can be expected to cover every situation."

number of recommendations are being considered.

A general numerical comparison of programs or the total Benefit Program of the various companies was found to be impossible because of the wide diversity of approaches and emphasis between companies. For example, in the case of pension plans some are contributory, some are not; some get social security, some do not; some get partial social security (i.e., the company deducts part of the social security benefit from its payment), some do not; some have surviving spouse option, some do not; some have better early retirement benefits than others, whereas if full retirement benefits are considered, the ranking of the companies may be reversed; some have a savings plan which may add to the retirement benefits, some do not; etc.

Pension Plan - The committee feels that the UCC Pension Plan is comparatively - in the bottom one-third of the companies studied. The most significant recommendation made about the Pension Plan was that a provision for a cost-of-living feature be included. Other recommendations were concerned with early retirement, inequities in provisions for higher paid employees and vesting provisions.

Savings aid pension

Savings Plan - The UCC Savings Plan is very good. Most of the companies studied have no savings plan. Three companies had plans that appeared to be better than the UCC plan. It was a committee observation that if the Saving Plan is used properly by UCC employees, the total retirement benefits from the Pension Plan and Savings Plan would place UCC employees in a much more favorable retirement position relative to other companies and at about the same cost to the employee. The major recommendation on the Savings Plan was that the waiting periods required before an employee can enroll in and take full advantage of the plan be eliminated.

Retirement Program - Several recommendations about retirement program administration were made.

Insurance Program - The UCC Group Insurance Plan is outstanding. Only one company had a better plan and the difference was minor. The UCC Medical Expense Protection Program was slightly below average. The two most significant recommendations made by the committee were: (a) the surgical schedule be changed to pay the actual cost of the surgery on a "usual, reasonable, and customary" basis, and (b) the \$50,000 maximum benefits under the Major Medical Plan be increased. Other recommendations concerning pregnancy, dental insurance, waiting time for enrollment, etc., were also included.

Carry-over suggested

Vacation Plan - The UCC plan is good. It, however, does not compare favorably with university-related organizations in the earlier years of employment. It also is not as good as government plans in the early years, but federal organizations have no provision for personal time off with pay. Such time off must be taken as part of vacation. The UCC plan is as good or better than other manufacturing and business organizations. The major recommendation made was that at least one week carry-over be allowed beginning with the first year of employment.

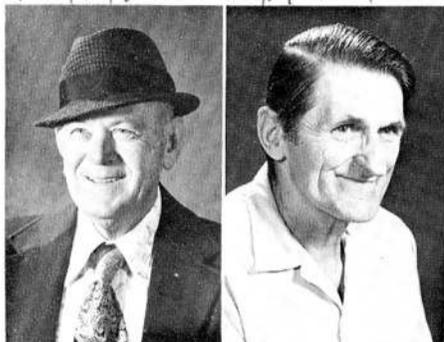
General - Many other plans were examined and recommendations were made. For example, a recommendation for more standardized administration of Personal Time Off was included. Changes in the Educational Assistance plan were recommended. Sabbatical Leave, Absenteeism, Benefit Plans Service, and other matters were discussed in the report to Nuclear Division management.

Conclusion - The committee feels that the total UCC Benefit Program is good. UCC plans, overall, probably place the company in the middle 40 percent nationally. Some specific changes in some plans are highly desirable. More effort on the part of the company to explain the plans should be coupled with more effort on the part of the employee to understand the plans. Most of the committee members had stated on their Attitude Surveys that they felt they understood the UCC benefit plans. Our extensive study as members of this committee has convinced us that we did not understand the plans as well as we thought.



Division Retirees

A host of Y-12ers will end long careers this month, as they retire from Union Carbide.



Belew **Brazda**

John R. Belew, general can fabrication shop, has been in Y-12 for 23 years. He retires to his 123 Bermuda Road, Oak Ridge, home.

Charles R. Brazda, dimensional inspection, was hired in 1954. He lives at Route 1, Heiskell.



Burger **Byrge**

William D. Burger, buildings, grounds and maintenance shops, has 30 years' company service. He lives at 413 Mid Street, Kingston.

George W. Byrge, general shops, has been with Union Carbide 23 years. He lives at 5710 Parkdale Road, Knoxville.



Clifton **Cloyd**

Corder G. Clifton, graphite shop, lives at 1905 Eighth Street, Knoxville. He joined Union Carbide in 1953.

Finley B. Cloyd, utilities administration, came to Y-12 in 1951. He lives at Route 3, Oliver Springs.

Omer D. Cloyd, guard department, joined the Y-12 organization in 1944. He lives at Route 2, Powell.

Bobbie Williams, building services, joined Union Carbide in 1953. He lives at 286 South Benedict, Oak Ridge.

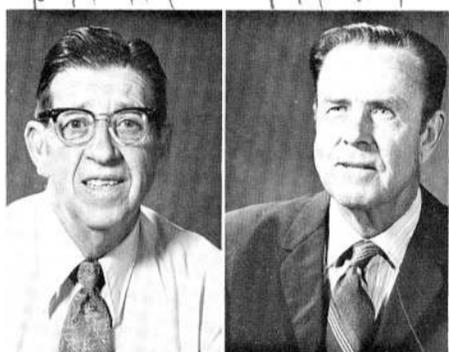
Connie W. O'Neil, Beta 2 chemistry, has more than 29 years with Union Carbide. She lives at 5608 Kentwood Road, Knoxville.



Heim **Hicks**

Tate B. Heim, A wing shops, has 17 years' company service. He lives at Route 5, Knoxville.

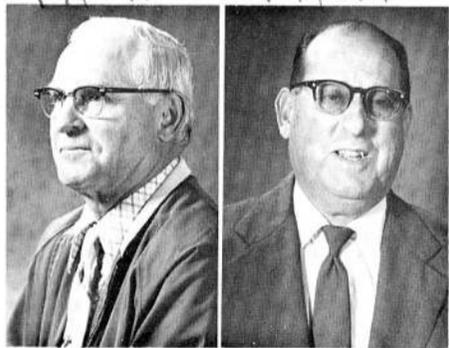
Bruce A. Hicks, building services, has more than 30 years' company service. He lives at 1126 Monroe Street, Sweetwater.



King **Morgan**

Henry R. King, dimensional inspection, lives at 101 Nixon Road, Oak Ridge. He joined Union Carbide in 1952.

Nolden Moore, building services, retires with 28 years' company service. He lives at 2017 Seminole Avenue, Knoxville.



Nicley **Rinderer**

Frank Morgan and Blake F. Nicley both retire from buildings, grounds and maintenance shops. Morgan, with 28 years with Union Carbide, lives at Route 4, Kingston. Nicley, who has been with us 31 years, lives at 421 Bridgeview Road, Knoxville.

Cletus A. "Pete" Rinderer, general plant tooling coordination, has 24 years with Union Carbide. He lives at 102 Decatur Road, Oak Ridge.

Jesse H. Russell, guard department, has been here more than 29 years. He lives at Route 1, Louisville.

George P. Schaeffler, electrical and electronics, passed his 30th anniversary in May. He lives at Route 1, Kingston.

Edith A. Stott, building services, hired in during the early days of 1943. She lives at 4140 Holston Drive, Knoxville.

Vibration-resistant mount among industrial development bulletins

Subjects ranging from a vibration-resistant mount for process instrument lines to the rapid and accurate analysis of stainless steel are included in the latest series of Industrial Cooperation Bulletins being

mailed to industries throughout the nation.

The bulletins are issued as part of the Industrial Cooperation Program of the Nuclear Division.

This issuance of the bulletins also announces the availability of an "Industrial Cooperation Bulletin Index" which covers the period from October, 1971, through May, 1974. The index consists of two sections - a permuted title index and a bibliographic section. Each bibliographic entry is arranged according to bulletin number and includes a title, abstract and report availability.

Nuclear Division Industrial Cooperation Bulletins are issued quarterly. Each bulletin describes a specific item, reports on the stage of development, the potential industrial application and patent status. In addition, the bulletins give the names of those persons from whom additional information can be obtained.

Among the other items included in the latest Industrial Cooperation Bulletins are:

- A volumetric dispenser for small particles.
- Sampler for removing variable percentages of free-flowing materials.
- Machining cylinders to a constant wall thickness.
- Highly sensitive hydrogen fluoride detector.
- Logic level indicator for digital circuits.
- Monel mirror for use in corrosive gas environments.
- A method for stabilizing samples containing low levels of mercury.

Business interested in obtaining copies of the bulletins should contact: Austin Read, Industrial Cooperation Office.

Next Issue

The next issue will be dated January 9. The deadline is December 31.



Russell **Williams**



Key **Parker**

Clifford E. Key retired from the Laboratory Protection Division at ORNL on December 1. He was a fire equipment dispatcher and had over 26 years of company service. Key and his wife, the former Virginia Smith, reside at 171 W. Wadsworth Circle, Oak Ridge. They have a daughter, Sarah.

Robert B. Parker also retired December 1. He was a technical reports supervisor in the Information Division at ORNL. Parker came to work at ORNL in October, 1951. He and his wife, the former Frances Evans, reside at 102 Endicott Lane, Oak Ridge. They have a son, William, who is a chemistry professor at Gettysburg College; and a daughter, Anne, who lives in New York.



FINAL REIMBURSEMENT — Charles W. Holland, statistical services and SS Control in Y-12, receives his final 50 percent reimbursement for his graduate expenses, from Ed F. Gambil, left, Technical Division. Holland received his B.S. degree from Florida State University, and was recently awarded his Ph.D. in management sciences from The University of Tennessee.

QUESTION BOX

If you have questions on company policies, benefits, etc. or any other problems with which we might help, just let us know. Drop your inquiry to the Editor, **Nuclear Division News**. (Or telephone it in to your plant news representative.) You may or may not sign your name. It will not be used in the paper.

Questions are referred to the proper authorities for accurate answers. Each query is given serious consideration for publication.

Answers may be given to employees personally if they so desire.

(Editor's Note: Recently there have been a number of questions pertaining to improving the benefits provided by the medical expense protection programs. This is a typical one.

QUESTION: I recently had surgery and Blue Cross (basic) allowed less than one-third of the bill. Is Blue Cross lagging behind in inflation, or do I have an inordinately expensive surgeon? I would like to know why we don't have a better medical plan?

ANSWER: The Company recognizes that the rapid increase in the cost of medical services has resulted in employees having to pay a larger proportion of their medical bill. The Nuclear Division Employee Benefits Task Force recommended several changes in the level of benefits. These are now under study.

QUESTION: It is my understanding that the guards working at the Clark Center Park are retired Carbide employees. How long may they work past the age of 65?

ANSWER: Several retired employees do serve as attendants at the Clark Center Park through service agreements that are entered into on an annual basis. No age cutoff has been established in this connection.

QUESTION: What percent of the positions that have been posted and bid on by salaried employees have been filled in this manner? I know of no person who has bid on a position and been accepted.

ANSWER: During the first three months of operation of the Job Opportunity System there were 90 position listings. These listings were for 201 openings (some listings of a job involved more than one opening). Twenty jobs have been filled by employee applicants responding to the 90 listings.

Social security tax base hike effective

Due to the rise in the Consumer Price Index, an automatic social security benefit increase will be provided in 1975. As a result, there also will be an increase in the taxable wage base.

Effective January 1, 1975, the taxable wage base will go to \$14,000 from its 1974 base of \$13,200. In 1975, employers and employees will be liable for a maximum tax of \$824.85. The tax rate of 5.85 percent remains the same.

QUESTION: With the present Company policy of pull-in parking at the parking lots at the Oak Ridge Gaseous Diffusion Plant, a hazard exists in parking beside a large type vehicle such as the pick-up truck campers. It is impossible to see oncoming traffic and one must take his chances in backing out into the flow of traffic blind. It seems to me something should be done about this. All large recreational parking lots have a designated section for this type of vehicle. Why doesn't the Company do something about this?

ANSWER: ORGDP management is continuously trying to provide parking lot facilities that will help to insure employees' safety as they enter, park and leave these facilities. There are many parking lots at ORGDP and a variety of sizes and types of vehicles that park there. We find it is not feasible to provide special parking facilities for the different types. As in all public parking facilities, there are isolated or individual problems that arise that create some hazard for the user. The few isolated cases, such as parking near pick up campers, must be "worked out" in a safe manner through the cooperation of the drivers themselves. Traveling at a very slow speed within the parking lots and use of common courtesy will protect and permit vehicles an opportunity to back safely from "blind spots." The assistance of fellow-riders as flagmen can help.

Division Deaths

John E. Reagan, Y-12's M wing shop, died December 10 in a Knoxville hospital. A native of Alabama, Mr. Reagan joined Union Carbide in 1959 after working with the Bibb Manufacturing Company, Columbus, Ga.

He is survived by his wife, Virgie Reagan, Route 3, Yarnell Road, Concord; two daughters, Charlotte Sprating and Jo R. Bullard; and three grandchildren. His mother, Sally Reagan, and a sister, Willie Floyd, also survive.

Funeral services were held at the Christopher and Smith Funeral Home, with burial in Warner Robbins, Ga.



Mr. Reagan

PATENTS

To William C. Dietrich, Y-12 Plant, for "Chemical Trap."

Garrett named assistant medical director at ORNL



Dr. A. S. Garrett Jr.

The appointment of A. Seaton Garrett Jr. as Assistant Medical Director at Oak Ridge National Laboratory was announced by Herman Postma, Laboratory Director.

Garrett, a native of Knoxville, came to work in ORNL's Health Division in 1964. He completed his pre-med work at The University of Tennessee, Knoxville, and received his medical degree from the UT Medical School in Memphis. His internship was served at the UT Memorial Research Center and Hospital in Knoxville. Garrett took his first year of residency in internal medicine at Kennedy Veterans Hospital, Memphis, and the next two years at the UT Hospital in Knoxville.

Prior to completion of his medical training, Garrett served for four years in the U.S. Navy in its Hospital Corps.

While in medical school, Garrett was the recipient of the Roche Award for scholastic and leadership achievement in medical studies. He is a member of Alpha Kappa Kappa Medical Fraternity and Alpha Omega Alpha Honor Medical Society.

Garrett is a member and past president of the Knoxville Society of Internal Medicine, and serves as a member of the Board of Directors of the East Tennessee Heart Association. He also holds membership in the Knoxville Academy of Medicine, Tennessee Medical Association, American Medical Association and the American Occupational Medical Association. In addition he is on the teaching staff of the UT Hospital.

Garrett and his wife, the former Lillian White of Granger County, reside at 708 Coventry Road, Knoxville. They have three children: Seaton III, Kevin and Annette.

CHRISTMAS HOLIDAYS

Tuesday and Wednesday, December 24, 25 are official holidays for all Nuclear Division employees, as we observe our final holidays for 1974.

No employee is required to be at work unless his presence is required by security or continuous operations.

Wednesday, January 1, 1975, is also an official holiday as the plants observe the first of 10 paid holidays.

COMPANY Service

20 25 30

Y-12 PLANT 30 YEARS

Elbert Scott, guard department; and Ellis T. O'Rourke, research services.

25 YEARS

Lloyd O. Campbell.

20 YEARS

Paul F. Meredith, Lige M. Gibson Jr., Charles F. Mason, Charles C. Jones, Neil B. Schultz, Clyde B. Clift, Claude J. Cumbie and Victor Henegar.

PADUCAH 20 YEARS

Howard I. Huff and Velma K. Blayney.

ORNL's Burch, Harms head LMFBF programs



Burch

Harms

The Nuclear Division News was in error in reporting William D. Burch's new title in the December 5 issue. Burch is Director of the Liquid Metal Fast Breeder Reactor Fuel Recycle Program.

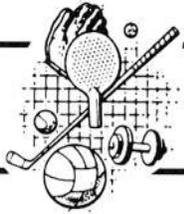
In his new assignment, Burch heads a program having a staff of about 35 persons. The objective of the program is to develop technology for reprocessing spent LMFBF fuel elements to recover plutonium so that it may be recycled back to the reactor and reused as fuel.

William O. Harms is Director of all Liquid Metal Fast Breeder Reactor Programs except Fuel Recycle.

The programs that come under Harms' purview involve about 140 technical people. The areas covered in this broad developmental effort include: (1) advanced materials for in- and ex-reactor application; (2) high temperature structural design methods; (3) reactor physics, including analytical and experimental reactor shielding, neutron cross-sections, and core design optimization; (4) Reactor Safety Including analytical and experimental core thermal hydrodynamics studies aimed at understanding the consequences of accidents and transient release of fission products from failed fuel; (5) instrumentation and controls, with emphasis on core diagnostics, and surveillance and development of advanced neutron and temperature sensors; and (6) R.D.T. standards.

These programs have both long- and short-range objectives with much of the work being specifically related to the Clinch River Breeder Reactor Plant to be located near Oak Ridge.

RECREATIONOTES



Last minute toy buying hints listed for Santa Claus aides

(Editor's Note: If you are, like most of us, still out doing last minute Christmas shopping, here are some tips from the New York office on the purchasing of toys for Christmas presents.)

Always suit the toy to the child, recognizing that children's toy needs change frequently. Look for age groupings on packages - these are carefully studied. Do not expect a

child to grow into a toy (as he would an article of clothing).

Consider how the toy might be misused at the child's stage of development. Does it have swallowable parts? The most sensitive age distinction is before and after he learns to walk, or about one to one and one-half years old.

Where the toy is accessible, watch for thin walls, sharp points, flimsy construction, pinch points, unprotected edges. The material is often less important than how the manufacturer uses it - whether it is metal, plastic, wood, etc.

Avoid all types of projectiles for small children - darts, rubber bands, etc.

Watch for loose objects small enough to be swallowed, or those that could break off or be removed easily, as wheels, etc.

For packaged toys, buy only recognized brand names. Avoid cheap imitations. Reputable American companies have research staffs, safety engineers, child-testing outfits, precision manufacturing engineers and sophisticated quality controls.

Don't shop solely on the basis of price - don't ever economize at the expense of safety. Although some toys are heavily discounted as traffic builders at Christmas, in general, you get what you pay for. In the long run, the more expensive product may be the most economical.

Don't equate value with the amount of television exposure. Many good toys are not heavily promoted.

Look for the Good Housekeeping or other quality seal. These organizations test products on a subjective basis from the layman's standpoint, taking the viewpoint of a mother rather than that of an engineer on technical standards.

CARBIDE BASKETBALL

Play got underway recently in the two Oak Ridge Basketball Leagues, putting 12 teams against each other in the Nuclear League, and 11 in the Atomic League.

League standings follow:
NUCLEAR LEAGUE

Team	W	L
Retreads	2	0
A.P.H.O.S.	2	0
Al's Pals	2	0
Rodenthouse Gang	2	0
The Gunners	2	0
Shifters	1	1
S.D.G.F.U.	1	1
Tired Old Men	0	2
Friends	0	2
Just-for-fun	0	2
T.A.T.	0	2
Isomets	0	2

ATOMIC LEAGUE

Raiders	2	0
Testers	2	0
G.B.U.'s	2	0
Has Beens	2	0
Jayhawks	1	1
Blackmen	1	1
The 970	1	1
Soul Children	0	2
Allstar Bombers	0	2
Long Shots	0	2
Lab Protection	0	2

ALL CARBIDE BOWLING TOURNAMENT

It looks like the first two week-ends in February are to be taken by Carbide bowlers! The Recreation Department announces that the Oak Ridge tournament among the three-plant bowlers will be rolled February 8 and 9, and the 15 and 16, also the 22 if necessary.

Carlos Brooks is serving as tournament director, and his committee consists of Bill Davy, ORNL; Charlie Hale, ORGDP; and Joe Sherrrod, Y-12. Mabel Tyer, also of Y-12, will serve on the committee and will serve as director of the tournament office.

Entry forms are available from league secretaries, as well as the Recreation Office, Building 9711-5, Y-12, or extension 3-5833.

Cash prizes will be awarded in handicap scoring only . . . trophies will be awarded in special categories for scratch winners.

Play is restricted to those eligible to participate in Carbide recreational activities (employees and spouses, retirees and spouses, and ORAU employees and spouses.) Entrants must use handicaps based on the highest average in the ABC or WIBC sanctioned league for the 1973-74 season, based on a minimum of 21 games. In the absence of such a string of games, the highest average in a sanctioned league as of January 3, 1975, based on a minimum of 12 games may be used.

Additional information, and rules, may be obtained from the Recreation Office, anyone of the committee, or league secretaries.

Y-12 BOWLING

The Rollers practically cinched the first half of the Mixed League early in December, moving three ahead of the Roses 'n Thorns. Mixed bowlers will not roll next week and the week after that due to the holidays.

The Rollmasters continue to dominate the C League, taking a three and one-half point lead ahead of the Rounders and Mini-Strikes in the 12-team race. George Bailey's 721 handicap series is high thus far in the first half.

The Classic League puts the Eightballs only one point ahead of the Riders. Harold Zang, Markers, recently marked a single game of 267 scratch, 289 handicap!

INDOOR PISTOL LEAGUE

The first match of the All Carbide .22 Caliber Pistol League will be held Tuesday, January 7. Firings will take place on subsequent Tuesdays, through April 15, at the Oak Ridge Sportsmen's Association.

Any UCC employee is eligible to fire in these matches. Additional information may be obtained from Richard Gwaltney, league director, extension 3-7648.

ORGDP BOWLING

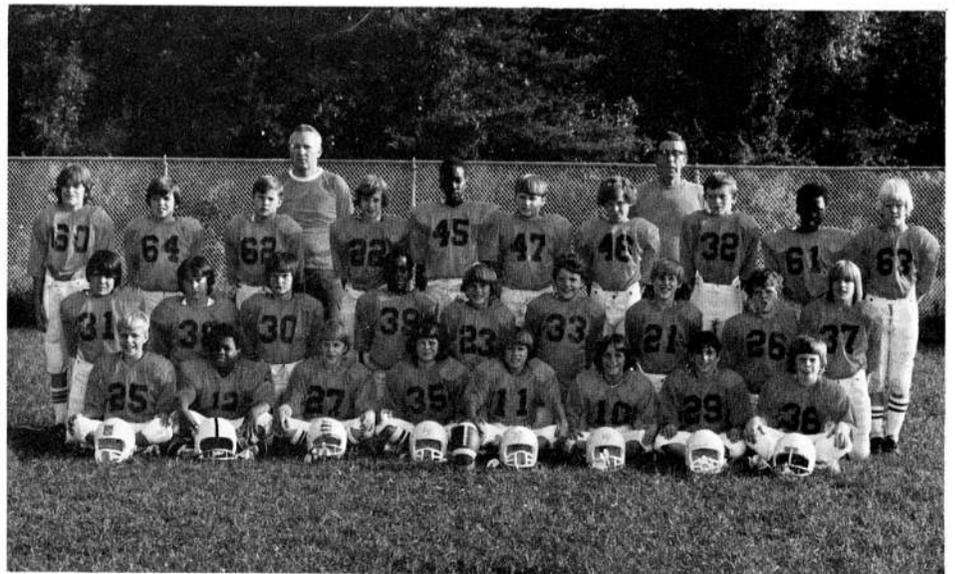
With two weeks left in the first half sessions, the Wednesday League sees the Planners in front place again, with four teams still in the running for top rung. Jim Fletcher's recent 273 handicap game was high on a night of rolling.

The ORGDP Women's League lead goes to the Bowlettes, only one away from the Payoffs, who are only one away from the Uptowners, who are only one away from the Wood Bees, who are only one away from the Spotters, which shows the competition in the race. Oleta Carden's 519/609 series recently inspired other bowlers.

The All Stars are ahead in the Tuesday League, way out front from the City Slickers. P. E. Clabough recently starred on the hardwood, rolling a 220 game, a series of 558/630.

ENERGY CONSERVERS

Make sure the damper in the fireplace is closed when not in use. Close it tightly when there is no fire so heat cannot be drawn up the natural draft.



OAK RIDGE LEAGUE CHAMPIONS 1974 - The Woodland Minor Pee Wee "Golden Eagles" were undefeated and unscored-on during the regular season of play. Many of the boys are sons of Nuclear Division employees. From left, front row: Victor Connelly, Donnie Croley, Nathan Brady (Kendall, ORGDP), Jerry Doeblner, Bruce Foster (Bill, ORNL). Tim Fischer (Al, Y-12), Steve Turpin, Tyler Kress (Tom, ORNL); second row: Terrill Smith (Fred, ORNL), Allan Hammond, Greg Denton, Kevin Hardin (Fred, ORNL); Peggy, Y-12), Patrick Fletcher (Faye, ORNL), Joey Gibson (Lynn Foust, ORGDP), Larry Spratling, Kenneth Hawkins (Eugene, ORNL; Mary, ORGDP); third row: Chip Hendrix, John Sweeney (John, Engineering), Mark Robertson, David Young, Jimmy Young, Mark Berry (Marquita, Y-12), Timmy Thornton, Don Murray (Jerry, Y-12), Edgar Manley (L.C., ORNL), and James Kirk; back row: coaches Fred Smith and Bill Foster, both of ORNL.

Major injuries from minor trauma

(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.

Since a ruptured disc in the back or a torn cartilage in the knee is so disabling, it is hard for many people to believe that these conditions could follow only minimal injuries.

Rupturing a disc while strenuously lifting or pulling heavy objects, or tearing a cartilage in a sandlot football game would probably be the typical history given by most people. In young people, such a history would be correct, but in adults over age 40 the injury is frequently trivial or even non-existent.



The middle-aged back

In young people, back strains may be exceedingly painful and temporarily disabling, but recovery is usually complete after a few weeks. After 40, Dr. James Cyriax, Physician to the Department of Physical Medicine at St. Thomas's Hospital, London, says that most of the persistent symptoms attributable to the lower back are due to, or associated with, some type of lumbar disc lesion. He is the son of Dr. Edgar Cyriax, who in 1919 was one of the first to associate sciatica and lumbago with degeneration of the lumbar intervertebral disc.

Much of the problem is due to poor design! The spinal nerves emerge opposite the joints, which are the weakest part of the spinal column. They could just as well emerge opposite the stronger vertebral bodies. The vertebrae are separated by a fibro-cartilaginous disc which has a pulpy center. This disc is subject to wear and tear and aging. The cartilage ring which holds the pulpy center can easily rupture, extruding the contents and causing pressure on the nearby spinal nerves. The disc has no blood supply so it cannot repair itself. It presumably protects the brain and the spinal column from vertical shocks when landing on one's feet after a fall or a jump from a high place. But how often is this needed?

The spine can get along remarkably well when the disc has eroded away completely and the lumbar vertebrae lie almost in direct apposition. True, it is a nice cushion for the spinal column in the young, but in the old it causes more trouble than it prevents.

Because of underlying degeneration, the injury which may precipitate the low back pain is often so trivial as to be humorous. Several years ago at ORNL a back "injury" occurred when an employee bent over to pick up his paycheck!

Back problems often seem to begin following minor twists, pulls, lifts,

slips, or falls. Reaching across a desk to pick up a book has "precipitated" a ruptured disc. In a great many cases, no specific injury can be recalled. Most cases of ruptured disc or low back pain called the "degenerative disc syndrome" are the result more of degeneration than of injury.

Torn knee cartilage

Most people think of a football injury when a torn cartilage in the knee is mentioned. In young people, a violent twist of the knee when the foot is fixed on the ground is a common cause. Dr. I. S. Smillie, of the University of Dundee in Scotland, has kept careful records on over 8,000 patients who have had a meniscectomy, the removal of a torn cartilage. In the 2,000 cases which were added in the fourth edition of his book in 1970, 41 percent gave no history of any injury. Twenty-one percent had a minimal rotational twist, while six percent occurred at home during domestic chores.

It is surprisingly common how often the first episode of locking of the joint occurs at night. The patient is awakened by pain and finds he or she cannot straighten out the leg. Dr. Smillie explains this by the absence of the protection of the quadriceps muscle of the anterior thigh which inserts by a common tendon onto the top of the leg. When strong and functioning, it protects the knee from twisting injuries. When sleeping in most modern beds, it is much easier to turn over by bending one or both knees. When the quadriceps is relaxed, it is easy to sustain a twist which traps the torn cartilage, causing the locking.

In both men and women past 40, cartilage injuries produced by trivial injury are common. Often the "accident" is no more than squatting down on the heels and reaching into a cabinet. When the knee is fully flexed and then twisted it is particularly vulnerable.

How is the middle-aged, deficiently constructed human to avoid these major injuries? It may not be possible to absolutely prevent them, but it should be possible to delay the onset of symptoms from an underlying degenerative process.

Here are some tips. Don't ever squat with both knees fully flexed after you are 40. Put one knee on the floor. Think before you lift, pull, or push. Never bend over to lift. Use the heavy thigh muscles and keep erect. Have a firm footing. Never reach to lift. Get under the object. Keep physically fit. Allow your muscles to maintain as much protection for your joints as possible.

When the above fails, be willing to accept some limitation. Complete cure is seldom possible.

Biology's Mazur appointed to Academy's space board

Peter Mazur of Oak Ridge National Laboratory's Biology Division has been named to a three-year term on the Space Science Board of the National Academy of Sciences - National Research Council.

The 20-member Space Science Board is a consultative group of the NAS-NRC concerned with shaping the most effective national program in space research. The board membership is composed of distinguished scientists from university, government and private research institutions.

Mazur will be Chairman of the Exobiology Panel which will review and make recommendations to the board on space research related to the handling, preservation and analysis of specimens collected in interplanetary probes. Specifically, the panel will focus attention on the Viking Project, an unmanned landing mission on Mars, scheduled for summer, 1976. This mission will analyze soil samples on the surface of Mars in an attempt to detect living organisms or organic compounds indicative of present or past life.

Mazur, recognized for his contributions to low temperature biology, including the successful freezing of mouse embryos, was named scientific director of the biophysics and cell physiology section of ORNL's Biology Division in February of this year.

A native of New York City, he holds B.A. and Ph.D. degrees from Harvard University. He has been a member of the Biology Division of Union Carbide organization since 1959.

He is president of the Society for Cryobiology and is a member of the



Peter Mazur

Webb School Board of trustees. His wife is the former Drusilla Stevens and they have a son, Timothy, a student at Beloit College, Wisconsin. The Mazurs reside at 125 Westlook Circle, Oak Ridge.

PATENTS

To Loren E. Carey and Leonard A. Abbatiello, Y-12, and Donald V. Ferree, formerly of Y-12, for "Ultrasonically Controlled Thickness Machining."

To Yok Chen and Marvin M. Abraham, ORNL, for "Submerged Arc Crystal Growth Process for Growing Transparent Alkaline Earth Oxide Single Crystals."

ORNL's Plant and Equipment announces promotion of two

Two ORNL men have been promoted to supervisory trainees in the Plant and Equipment Division. The announcement was made by Harry E. Seagren, Division Superintendent.

Rex T. Moody was born in Kingsport but moved to Oak Ridge at an early age. He attended junior high school in Oak Ridge and graduated from Oliver Springs High School. Before joining the staff at ORNL, Moody worked in the contracting business, both for himself and for other contractors. After coming to ORNL he worked in several capacities before being promoted to carpenter in 1967. Moody is assigned as supervisory trainee in the research services department.

Moody and his wife, Jeanne, who works in Development at the Y-12 Plant, live on Route 1, Kingston. They have two children, Jody and Tamara.

Bruce H. Mynatt is a native of Graysville (Rhea County), Tenn. He graduated from Hixson High School. Mynatt came to ORNL in 1947 and



Moody

Mynatt

began his first assignment in the Guard Department. He transferred to Plant and Equipment as a laborer in 1965 and became a painter the following year. Mynatt's current assignment is in the building and utility services department.

The Mynatt residence is at 133 Tyson Road, Oak Ridge. Mynatt and his wife, Betty, have two children and a granddaughter. The entire Mynatt family specializes in growing plants.



FIRST CLASS — The first class of the new Clerical Orientation Program at ORNL is shown above. Seated, from left, are: Carol Barringer, Jane Bright, Lisa McKinney, Gay A. Williams, Linda Burroughs, Sherrie Alcorn and Audrey Gillis. Standing, from left, are: Chris Flanary, Vernell More and Jane Patterson, instructors; Lori Norman and Debbie Barker.

ORNL initiates new orientation program

The first session of a newly-developed Clerical Orientation Program at the Oak Ridge National Laboratory has been completed.

Instructors are Vernell Moore, a secretary in the Metals and Ceramics Division who has a degree in business education; and Jane Patterson, employment interviewer and coordinator of ORNL's job posting program for employees in the administrative support areas.

The program, which consists of lectures, "learn by doing" sessions and field trips, is administered by the Personnel Development and Services Department of the Employee Relations Division. It is directed toward familiarizing newly-hired clerical employees (typists, stenographers, secretaries, records clerks, file clerks, library assistants) with general laboratory routines.

Contents of the program include: discussions on human relations and attitudes, use of the basic reference

books; communication techniques; care and use of various business machines; timekeeping; laboratory correspondence; services available through facilities at ORNL; and general office procedures.

Participants in the first session were: Audrey L. Gillis and Lisa P. McKinney, Employee Relations; Sherry C. Alcorn and Lori Norman, Information; Linda S. Burroughs and Carol Barringer, Finance and Materials; Gay A. Williams, Environmental Sciences; Debbie Barker, Energy; Jane Bright, Reactor; and Chris Flanary, Chemical Technology.

The program will be conducted monthly until all newly hired clerical employees have had a chance to attend. Classes are held for two hours each day, extended over 10 consecutive working days.

PADUCAH SNOWBIRD SCRABBLE

A total of 53 brave souls at Paxton Park braved the early morning frosts to play golf on December 7.

After getting thawed out with hot coffee, Archie Miller's team, consisting of Harry Hook, Mary Parrish Andrews and Ford Cherry was declared winner over Jim Freeman's team of Bill Cronin, Toni Piercy and Dick Coleman, who had to be satisfied with second place. Numerous two under pars were recorded with Marshall Jones' team being declared the third place winner.

'Penny shortage' hits Division's cafeterias

John Dougherty, Food Services Coordinator for the Nuclear Division, says the penny shortage which has plagued most of the country recently has hit the Division cafeterias and canteens.

"We use to have at least \$15 worth of pennies per cafeteria each day," said Dougherty. "Now we are doing well if we can get \$5 worth twice a week. It is really getting bad," he said.

Dougherty is asking employees to trade their pennies in at the cafeterias and canteens to ease the problem. "We can't pay premiums on pennies, but we would certainly be very grateful if employees would help us out," Dougherty said.



Y-12 PLANT

RIDE from LaFollette to any portal, straight day. Victor Henegar, plant phone 3-7749, home phone LaFollette 562-2276.

JOIN CAR POOL from 101 East Irving Lane, vicinity of Illinois, Oak Ridge Turnpike, to Biology Portal, straight day. Mike Litt, plant phone 3-7578, home phone Oak Ridge 483-3277.

JOIN or FORM CAR POOL from West Town Mall area, Knoxville, to East or North Portal, 8-8:30 a.m. (flexible). Norbert Hanus, plant phone 3-7841, home phone 588-9363.



CIVIL DEFENSE HONORS — Henry C. Dunning, center, was recently honored for 25 years of active service with Paducah's Civil Defense Communications Group. The honors came at a meeting of the Radio Amateurs of Western Kentucky, Southern and Southeastern Illinois. Mayor Dolly McNutt, left, and George Bourgois, right, communications officer for Paducah, look on. Dunning is a long-time employee at the Paducah Plant.



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