



NUCLEAR DIVISION NEWS

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

Vol. 4 - No. 23

December 20, 1973

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.

QUESTION: Is consideration being given to a four-day work week at any of the UCCND plants in order to conserve energy (electrical, etc. not manual)?

ANSWER: We are not considering a four-day week at the present time. There has been no change in our position since this question was answered in the May 3, 1973 "Question Box" as follows:

"Although the four-day 40-hour week has received a lot of publicity, only a small fraction of U.S. firms and only 100,000 employees are now working this schedule. Practically all of the companies involved are small ones, most of whom are not covered by the Walsh-Healy Public Contracts Act and therefore are not required to pay overtime for hours worked over eight in a day. Where the schedule has been adopted, results are still inconclusive."

Union Carbide has no plans to go to the four-day 40-hour schedule in the foreseeable future.

QUESTION: When will results of the recent attitude survey taken at K-25 be distributed to the participants? Although assurances of full distribution were given at the time of the survey, rumors are currently circulating to the effect that results will be made available on a limited basis, if at all.

ANSWER: The results of the survey at ORGDP and Paducah will be reported to employees in the near future, hopefully, by mid-December. Processing of the survey results by Science Research Associates took longer than we had originally anticipated. A letter from Mr. Hibbs explaining this matter was mailed in mid-November to the employees affected.

QUESTION: Weekly-salaried clerical workers, both male and female, are the most underpaid and some of the most valuable personnel in Y-12. Why does the Company pay building service employees, process operators, etc., so much more than their clerical workers? They deserve

to make as much as they do, but the clerical workers are really being cheated.

ANSWER: Weekly-salaried clerical employees are a valuable and important part of the Company team. Their jobs have been carefully evaluated and are periodically examined to insure that the pay range is fair and comparable to rates other companies in this area are paying for similar jobs. Many clerical employees are paid more than building service employees and process operators, some are paid the same, and some less. The rate of pay for a particular job is based on several factors including job duties, working conditions, and the level of pay for similar jobs in this area. Under the Company policy of promotion from within, there is an opportunity to advance to other jobs with more responsibility and higher pay. We believe that our rates are competitive and that clerical salaried employees are fairly paid.

QUESTION: Will we be permitted to have the usual Christmas parties on Company time this year?

ANSWER: When we went from a one-day Christmas holiday to a two-day holiday in 1970, at the same time we discontinued the practice of permitting any time-consuming Christmas parties on the job prior to the holiday. Again, this year, our Managers will be asked not to permit time-consuming parties on the job prior to the December 24 and 25 holidays.

QUESTION: Are there plans to continue the safety award drawings? I feel it inappropriate to have lotteries in connection with safety.

ANSWER: The Safety Incentive Plan, which provides for individual awards as well as random drawings, will be continued at least through 1974. The plan has been revised several times in the past and will certainly be changed in the future. The objective - to stimulate safety awareness - will remain the same.

Nuclear Division initiates program to promote car pool participation

How would you like to make new friends and save over \$200 a year? Car pool participation provides these benefits, as well as reduces energy consumption, air pollution and traffic congestion.

Nearly one-third of our petroleum is consumed by automobiles. This fuel usage can be substantially reduced by individuals participating in car pools.

In view of the energy shortage, and the need to conserve what fuel we have, a Nuclear Division-wide program to promote participation in car pools is being put into effect. The program was developed by David A. Pilati, ORNL-NSF Environmental Program.

Coordinators for the program are: Robert Newton, Oak Ridge Gaseous Diffusion Plant; Pilati, Oak Ridge National Laboratory; George Evans, Oak Ridge Y-12 Plant; and Keith Bryant, Paducah Gaseous Diffusion Plant.

Participation decreases

While fuel supplies have been going down, so has the participation by Nuclear Division personnel in car pools. For example, studies conducted recently by Pilati showed that the average load factor for cars driven to ORNL is now down to about 1.6 passengers per car. This is in contrast to the average load factor of 2.6 passengers per car in 1963.

The Division car pool program is scheduled to begin immediately. Participation is completely voluntary. Each employee will be given an area map which has been divided into grids, along with a form to complete. The employee will be asked to provide the following information:

1. Badge number
2. Address
3. Phone numbers (home and work)
4. Grid number (location of employees' residence on map)
5. Indication of willingness to participate.

The information gathered will be processed both manually and by a computer code recently developed by the Federal Highway Administration.

After all information has been processed, each employee will receive a computer printout of the names, addresses and telephone numbers of employees living near him who have expressed an interest in the program.

The final burden - that of making contact with his neighbors and setting up the car pools - will rest with the individual.

Savings to employees

In addition to conserving fuel, the financial savings from car-pooling are great. For example, the possible (average) savings for an Oak Ridger now driving alone, who joins a two- to five-passenger car pool, would carry from \$175 to \$280 per year!

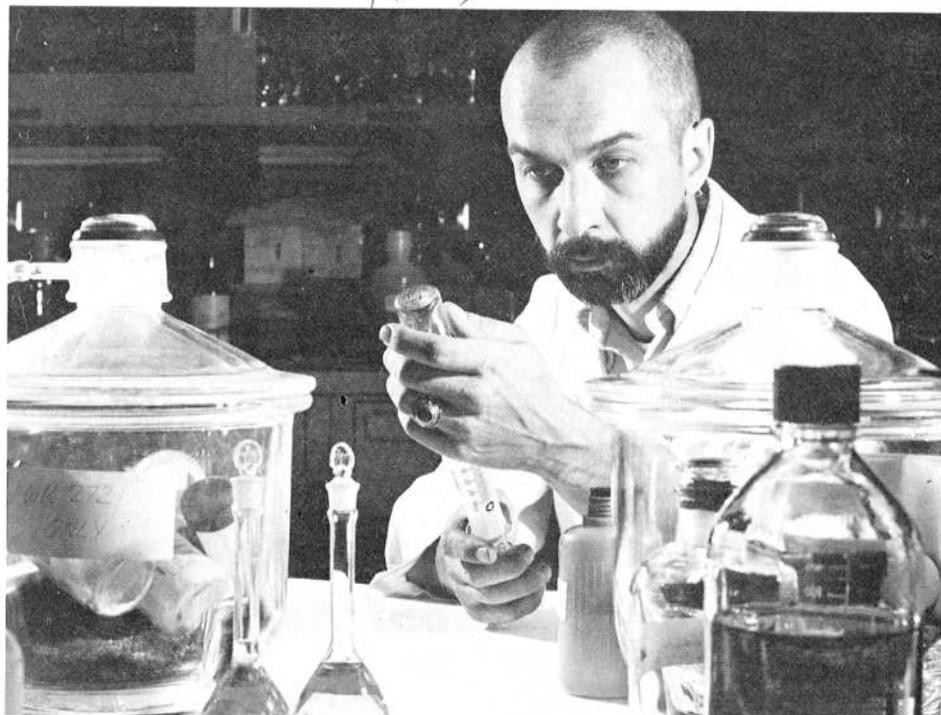
All Nuclear Division employees are encouraged to do their part to lessen the burden of the energy crisis. Participating in a car pool is one of the easiest ways to do this, and save money too.

Next Issue

The next issue will be dated December 20. The deadline is December 12.



'POOLING' CAN BE FUN - Most of the members of this car pool have been riding together from Lenoir City for several years. The ORNlers are, from left, Ray Evans and Meredith Hill, Metals and Ceramics; David Ghormley, Computer Sciences; David Eaker, Finance and Materials; and June Redmond, Chemical Technology.



RADIOPROTECTIVE DRUG — John M. Yuhas, Biology Division, has conducted experiments which indicate that a radioprotective drug, known as WR-2721, permits laboratory animals to receive higher doses of radiation for treatment of cancerous lung tumors without causing radiation damage to normal tissue.

Program in human relations training conducted at ORGDP

The Human Relations Training Program at the Oak Ridge Gaseous Diffusion Plant is now in its third month.

The training program entitled, "Working with People," is a direct result of the Nuclear Division's efforts to provide human relations training to all levels of management.

Instructors are James W. Pickel and Robert L. Payne. Both men have had front-line supervisory experience and were instrumental in developing the course material.

Employees involved

Involvement thus far has proceeded from the top-management level through the department-head level. Some division-head secretaries and Affirmative Action representatives have also attended the program.

The first group was comprised of plant and division superintendents, as it was felt that their direct involvement was necessary to encourage support and understanding of the program.

Major emphasis of the program is placed on awareness of human differences in work situations. Included are effective listening, communication, human behavior, attitudes and motivation. The 20-hour program is designed to accommodate 15 employees a week.

Corporate visitors

The program may be used as a pilot for similar programs throughout the Corporation. Several Union Carbide officials have visited sessions of the program. Included are Lloyd M. Cooke, corporate manager of university relations and professional recruiting and corporate director of urban affairs; C.R. Keeney, corporate manager of labor and Equal Employment Opportunity affairs; and W.A. Carmell, corporate manager of Equal Employment Opportunity programs.

A similar human relations training program was conducted recently at the Paducah Gaseous Diffusion Plant, and one is currently underway at the Oak Ridge National Laboratory.



PADUCAH SPONSORS DELEGATE — Again this year the Paducah plant will sponsor a delegate to the Washington Workshops Congressional Seminar. Jill Dee Sawyer, selected by the high school faculty as the 1974 Carbide Scholar, is pictured above with the principal of Lone Oak High School, Bernie Bherent. Jill, an honor student, is active in all student activities, especially band and honor societies.

Drug protects lab animals against x-ray increase for cancer therapy

A drug which enables living tissue to withstand over twice the amount of radiation normally required to cause injury is being studied by Oak Ridge National Laboratory biologists to determine if it can be applied to cancer radiotherapy.

The study, conducted by John M. Yuhas of ORNL's Biology Division, is aimed at possible use of the drug in patients undergoing radiation treatments for lung cancer.

Undesirable side effects of radiation in normal tissue which surround a cancer limit the dose of radiation which a patient can be given. The argument has been made that if the radiation dose to these cancers could be increased by as little as 20 percent, the effectiveness of radiotherapy would be improved markedly. Thus far, in experiments with mice and some larger animals, Yuhas and his research team have found that injection of a drug, known as WR-2721, increases the resistance of normal tissues by more than 100 percent, without increasing the resistance of the tumor. This makes it possible to double the radiation dose to the tumor without increasing injury to the animals' normal tissues.

Encouraged by studies

Although encouraged by the results of these studies, which have been in progress for more than seven years, Yuhas cautions that it does not necessarily follow that the drug would have identical results in human cancer patients. He said that such questions as human tolerance to the drug must first be resolved before clinical testing in human cancer patients can be considered. WR-2721 was originally developed by the Walter Reed Army Institute of Research as part of an effort to develop drugs for persons who might be exposed to high levels of radiation.

Explaining the basis for proposing this drug's use in cancer radiotherapy, Yuhas said: "One problem encountered in radiation therapy is that solid tumors outgrow their blood supply and portions of the tumor become hypoxic, or oxygen-deficient. Hypoxic cells are more resistant to radiation and therefore larger radiation doses are required to destroy them. Most experimental efforts have, in the past, been directed toward decreasing the radiation resistance of these hypoxic portions of the tumor. Since most of these efforts proved impractical, we decided to approach the problem from the opposite direction -- increasing the resistance of the normal tissues. Our simple proposal was that the deficient blood supply, which creates the problem, could be used to our advantage since it would be unable to transport the radioprotective drug to the tumor. Following our demonstrations of selective protection of the well vascularized normal tissues, this simple mechanism was tested and confirmed by collaborators at the Medical Division, Oak Ridge Associated Universities, and the Albert Einstein Medical Center."

Cancer model developed

In continuing these studies, Yuhas is combining this drug-radiation treatment of the primary tumor with other forms of therapy which are effective against small metastases which spread throughout the body. A model of lung cancer, recently developed in his laboratory, allows the analysis of therapeutic effects in terms of both the original tumor and the many



MOUSE IRRADIATION — Anita Walker prepares to irradiate mice with an x-ray source as part of the experimental program to determine the effectiveness of a radioprotective drug.

metastases which evade the radiation treatment.

The problem of metastasis is a major one, according to Yuhas, and effective treatment of lung cancer will require resolution of many questions. For instance, does treatment of the primary tumor actually stimulate metastatic spread, or does it merely allow those which have already spread to begin rapid growth? Further, which type of therapy is optimum for treatment of metastases, or should multiple types of therapy be employed? Although the main research effort is aimed at solving these questions in relation to lung cancer, Yuhas points out that the answers could be applicable to solid cancers which occur in other parts of the body.

Role of radiation

And what is the role of radiation in inducing or allowing the appearance of cancers? Yuhas explained, "When animals are exposed to large doses of total body irradiation, we observe a variety of cancers which differ not only in their frequency but also in their characteristics. Some are the result of a radiation-activated virus, while others are not. Some cancers are inhibited from growing by the animals' immune system, while others grow essentially unchecked. We are currently studying the radiation-induction of these cancers in mice given the exposure either very slowly or very rapidly. Ultimately, we hope to be able to explain why low dose rate exposures are less efficient cancer inducers in terms of the characteristics of the cancers themselves. These studies complement the therapy studies, since a complete understanding of a cancer's characteristics is required in order to design effective treatment."

Yuhas' research team consists of Mrs. Jude Proctor, responsible for the tissue culture studies and computer analysis; Richard E. Toya, involved in tumor immunology work; Nelson N. Pazmino, who concentrates on the cancer-producing viruses; and Anita Walker and Mildred Hayes, who conduct the carcinogenesis experiments.

THE LAST WORD

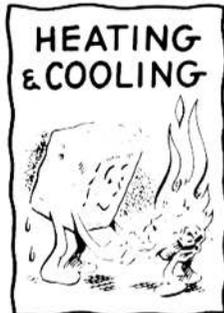
In the old days, if a man missed the stagecoach he was content to wait a day or two for the next one. Now he feels frustrated if he misses one section of a revolving door.

Tips on conserving energy in the home

The United States has one-sixteenth of the world's population, but it consumes one-third of the world's energy. Unfortunately, the nation is consuming a lot more energy than it is producing, as the present "energy crisis" confirms.

All facets of American life and business are affected by the energy crisis. Industries must change or modify operational habits to conserve more energy, and residents of this country must also look for ways to conserve energy in their homes or apartments.

Listed in this article are some practical reminders of things you can do at home to help conserve electricity, gas, coal or oil. Saving energy does not have to be your only motive for using these tips - you'll end up saving money, too.



Ask an insulation dealer to check the insulation in your home. Proper insulation is the most important factor in cutting heating and cooling costs and can save 15 percent or more on your bills.

Invest in storm windows. The cost can be recouped in about six years via reduced heating costs.

In winter, draw shades or drapes when the sun goes down. This creates another layer of dead-air space that will keep out cold air. In hot weather, keep shades or blinds drawn to keep out the sun.

Check for cracks between window and door frames and the walls. Rope putty or a chalking gun and compound will seal the cracks.

Keep mail and milk chutes in doors tightly closed to stop drafts.

Don't block radiators or registers with furniture or drapes - they restrict air circulation and overwork heating and cooling equipment.

Don't overheat or overcool. In winter, try to adjust to a lower temperature, say 68 instead of 72 degrees. Air conditioning specialists recommend a setting of 76 to 78 degrees, not 70 degrees, during the summer months.

If possible, place window air conditioning units on the shady side of the house.

Keep filters clean and change them when necessary. Dirty filters restrict the flow of air and make your unit work harder.

Close heating-cooling ducts and shut the doors in unused rooms.

If the basement, garage and attic are not heated or cooled, keep the doors leading to them closed.



Use pans that are the same size as the unit to avoid wasted heat or extra cooking time.

Don't boil more water than you need. Once water reaches the boiling point, reduce the flame or lower the setting.

For electric surface cooking, turn off the unit a few minutes before food is done. The stored heat will continue to cook the food.

Use small plug-in appliances - skillets, for instance - when possible. They usually

don't use as much electricity as the burners on stove tops.

Don't over-peep. It's bad for baked goods, and there is a heat loss of as much as 20 percent every time you open the door.

Thaw meats before cooking. It shortens cooking time.



Don't put them next to your range or in a sunny spot.

Don't open refrigerator or freezer doors more than necessary.

Don't keep your refrigerator colder than necessary. The range should be 34 to 40 degrees.

Close a dollar bill or a thin sheet of paper in refrigerator and freezer doors. If it pulls out easily, cold air is escaping, new gaskets should remedy the situation.

If you are buying a new refrigerator-freezer, consider buying one that you defrost. It's more work, but frostless models use about 50 percent more energy. You can save on the initial investment and yearly operation costs.

If you have a freezer, keep it full. The food will retain the cold and allow less cold air to spill out when you open the door.



Turn off incandescent lights in unoccupied rooms or whenever you will be away for more than a few minutes.

Dust bulbs and shades for more efficiency.

If you don't want to enter a dark house or apartment or want to protect your home from prowlers, buy a clock timer rather than leaving lights on the whole time you are away.

Color television tube sets use almost twice as much electricity as black and white. If you have both, don't watch a black-and-white movie on the color set.

Some TV sets have an instant turn-on feature, which consumes electricity 24 hours a day. Unplug sets with this feature when they are not in use.

Don't leave radios and TVs on when no one is listening or watching.



Don't use hot water if warm or cool will do. Next to heating and cooling equipment, the water heater is the most expensive home appliance to operate.

When possible, run the washing machine with cold water.

Don't wash dishes under hot running water.

Run dishwashers and washing machines with a full load.

Replace worn-out washers. A dripping faucet loses hundreds of gallons of water a month.

A shower generally uses about half as much water as a bathtub, so encourage your family to take showers.

Energy conservation studies at ORNL

By Roger Carlsmith

In the summer of 1970, ORNL was given a grant by the National Science Foundation to start a program of studies on environmental problems. One of the areas to be studied was energy. The first summer of the program was to be devoted to defining topics on which ORNL might work most effectively.

We observed that energy consumption has been increasing steadily and also rapidly. Between 1950 and 1970 energy use in this country has doubled. There has been an annual growth rate of 3.5 percent or more than twice the growth rate of the population. Each person in the United States now uses the equivalent of 2,600 gallons of oil per year.

Much of the environmental impact of energy conversion can be attributed to this high rate of consumption. Energy systems (including transportation) are responsible for well over half of the 260 million tons of pollutants emitted into the air each year, and for an important part of water pollution. In many parts of the country air pollution levels have reached a point at which significant health and mortality effects appear to occur. With intensive programs of pollution abatement now underway we can hope that most kinds of pollution will eventually decrease in spite of increasing energy usage.

Environmental impacts

However, there are at least two kinds of environmental impacts which will continue to increase as we use more energy. The first is heat release. All of the energy we use from fossil and nuclear fuels must eventually serve to heat up the earth. We are probably still a long way from disturbing world climate. But energy use tends to be concentrated into small areas such as New York City where man-made heat is already large compared to the natural solar input. Furthermore, we are moving toward increasingly large electric generating stations which will produce correspondingly large concentrations of waste heat.

Gibbons to give energy talk at local meeting

John H. Gibbons, former director of the ORNL-NSF Environmental Program, will be guest speaker at the joint meeting of the Knoxville - Oak Ridge American Institute of Chemical Engineers and American Institute of Chemists.



Gibbons

Gibbons, who is now director of the Office of Energy Conservation for the U. S. Department of the Interior, will speak on "Energy Conservation from the Washington Scene." Gibbons is acutely aware of the many aspects of energy conservation, and his talk should provide members with both interesting and up-to-date information on the subject.

The meeting will be held Friday, December 14, at the Alexander Motor Inn in Oak Ridge. A social hour and dinner will precede the meeting which is scheduled for 8 p.m.

The second inescapable environmental problem with continued exponential growth is that of land use. For example, projected growth in electrical capacity in 1985 will require that the land area devoted to this purpose be increased from 5,000 square miles to 16,000 square miles. Conflict in priorities is seen in the increasingly vocal opposition to the siting of new power plants, transmission lines, oil refineries and coal mines.

Fuel shortage

We also observed another kind of problem that can come from continued growth in energy demand. Domestic production rates of oil and gas peaked in the early 1970's and have declined slightly since then. These two fuels now make up 77 percent of our energy usage. While we can expect additional production from Alaska, from off-shore wells and from tertiary recovery, we cannot expect any large increase in total United States oil production in the future. Many projections of future energy supply postulate that a growing share will be obtained from the Mideast. But the events of the past two months show clearly the problems that can come from this kind of scenario.

New energy technologies will certainly be developed. Nevertheless, it will take time before any of these can be deployed to supply an important share of the market. As an example, it has taken 25 years of intensive development for nuclear power to reach the point of supplying 0.3 percent of the United States' energy (in 1972). Even when fully developed, the new energy sources may well give us more expensive energy than the cheap natural gas and oil we are used to.

Increase impossible

As we completed our initial assessment at the end of the summer of 1970, we became increasingly convinced that it will be neither desirable nor possible for the country to increase its energy consumption in the future as it has in the past. Thus, a major part of our work in the NSF program since that time has been to analyze the possibilities for lower growth rates. Some strategies will take a number of years to accomplish. Others can be put into effect at once and can help conserve energy during the critical period we will face this winter.

In subsequent issues of the Nuclear Division News some specific findings and recommendations will be discussed.



ORNL

CAR POOL MEMBER from Karns area to East Portal, 8 a.m. shift. John Groover, plant phone 3-6417 or Knoxville 584-2438.

CAR POOL MEMBERS from Waddell West Outer or Pennsylvania Avenue area, Oak Ridge, to East or North Portal, 8:15 shift. Tom Burnett, plant phone 3-6939 or Oak Ridge 483-1975; or Dick Reed, plant phone 3-1901 or Oak Ridge 483-3458.

Y-12 PLANT

RIDE WANTED from Georgia Avenue, Oak Ridge, to Central Portal, straight days. J. M. Powers, plant phone 3-5938, home 483-0857.

Oak Ridge is 'home' for MIT practice school since 1948

Over 500 graduate students from the Massachusetts Institute of Technology have attended the School of Chemical Engineering Practice since it was first established in Oak Ridge 25 years ago.

Union Carbide first became a sponsor of the Practice School in 1948. The station was then located at the Oak Ridge Gaseous Diffusion Plant, but served all three of the facilities in Oak Ridge. The School left ORGDP in 1962, and was reestablished in 1966 with ORNL as its headquarters. During the School's second tenure in Oak Ridge the students have been restricted to working with ORNL and its division at the Y-12 Plant, because of the security clearances required in other areas.

The present staff consists of Jefferson W. Tester, director, and Raymond M. Mayer, assistant director. Both are full-time staff members of MIT. Alice Maxwell, a Carbide employee, has been secretary for the School virtually since its inception.

Graduate enrollment

The graduate enrollment in chemical engineering at MIT is the largest in the country, with over 150 students. More than half of these students are enrolled in master's degree programs, and over 70 percent elect to attend Practice School in lieu of writing a master's thesis.

Participants in the Practice School program are enrolled at MIT and are granted full academic credit. The School consists of a 16-week semester. Eight weeks are spent at the ORNL station and the remaining eight weeks are spent at American Cyanamid's Organic Chemicals Plant in Bound Brook, N.J.

Contrast between stations

The contrasts between operation at the two stations are quite sharp. At the Bound Brook station, the student is given intimate exposure to process improvement, economics, and applied chemistry in a profit-motivated organic chemicals manufacturing operation. The Plant produces dyes and dye intermediates, fertilizers, pesticides and some heavy chemicals. At the Oak Ridge station, the student is exposed to advanced research and development in a government-sponsored laboratory, which is principally devoted to the application of nuclear technology.

Groups of two to four students work on a single research problem for a period of four weeks. Tester and Mayer work with both the Laboratory consultants and the students in the implementation and coordination of the technical aspects of the project.

Projects solicited

Many of the student projects are suggested by ORNL staff members, and the reports written by the students fulfill real Laboratory needs. Problem suggestions are solicited from all divisions of the Laboratory. More than half the problems undertaken by the Practice School at ORNL originate in the Chemical Technology and Reactor Divisions, but the range of problem areas has been extremely broad. Project-oriented work has been done for Environmental Sciences, Metals and Ceramics, Health Physics and Biology Divisions, and the NSF-Environmental and Molecular Anatomy Programs.

Tester, a professor at MIT, considers the Practice School an integral part of ORNL. "We essentially follow the changes in the Laboratory, and try to make a contribution to both on-going and frontier-type research programs," says Tester.

Current assignments

The 14 students presently enrolled in the program and their last project assignment are listed below.

Elsa Kam-Lum, Bulent Eczacibasi, Larry J. Krussel and J. Kellin O'Neill - "Kinetic and Thermodynamic Aspects of Hydrogen Production by an Enzyme-Catalyzed Cyclic Process."

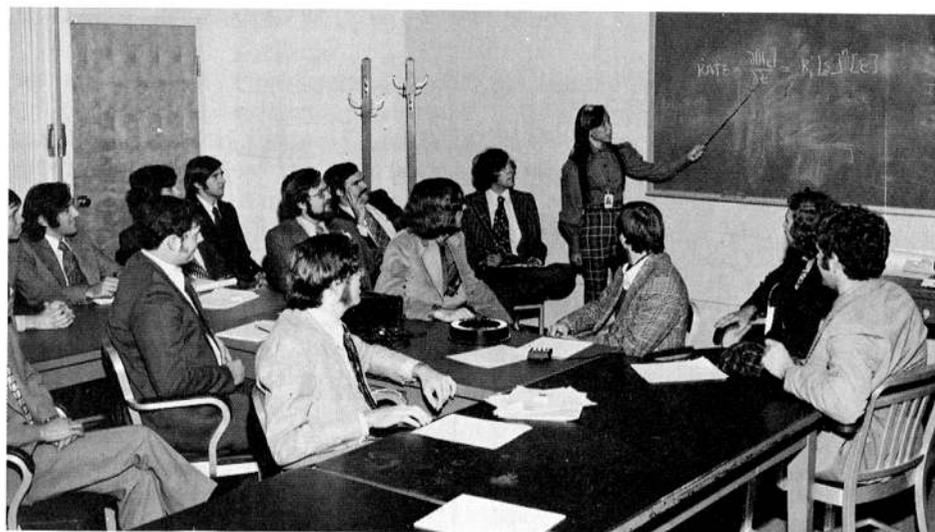
Karl R. Landgraf, Kris I. Judrnac and Rafael Solares - "Choice of Working Fluid and Operating Conditions for Energy Conversion with Geothermal Heat Sources."

John M. Donohue, Paul E. Koppel and Ronald P. Leemhuis - "Molecular Electronic Structure as Related to the Energy Loss of Charged Particles and the Optical Properties of Matter in the Ultraviolet."

Ted W. Bush, Eric M. Suuberg, Jerry J. Toman and Makoto Yonezawa - "Performance Characteristics of Dynamically Formed Hydrated Zr(IV) Oxide-Polyacrylic Acid Membranes in Treating Textile Dyeing Effluents."

Role of school

The Practice School, which was intro-



WEEKLY TALKS — Elka Kam-Lum, currently enrolled in the MIT Practice School, presents a talk concerning the progress her group has made on the project assigned to them. ORNL consultants and other students are invited to attend these weekly talks.

duced at MIT in 1917, has as its sustaining principle the assumption that, in the engineering profession, the premium is on the person who can best apply his/her theoretical background and research aptitude to the formulation and solution of real technical problems. The role of the School is of particular importance in enabling students to make the transition from the classroom to the "real world" in a day when the relevance of higher education is often questioned, and when heavy emphasis is placed on bridging the "academic-industrial gap."

On the technical level the student is required to be critical in his approach to and analysis of his research. On the personal level, through group leadership positions, conferences, and oral and written progress reports the student develops skills that are too often neglected in the academic world: human relations, communications and group dynamics.

Former graduates

The value of the Practice School experience is perhaps best illustrated by the enthusiastic endorsement of its former graduates, including many educators and leaders in industry.

PADUCAH'S SAFETY SIGN PROGRAM

A Paducah plantwide program depicting proper safety signs and the various conditions of plant signs will be completed during January, 1974.

Details of a contest to promote safety-sign awareness will be distributed to each employee. A drawing will be held and winners announced during the following month.

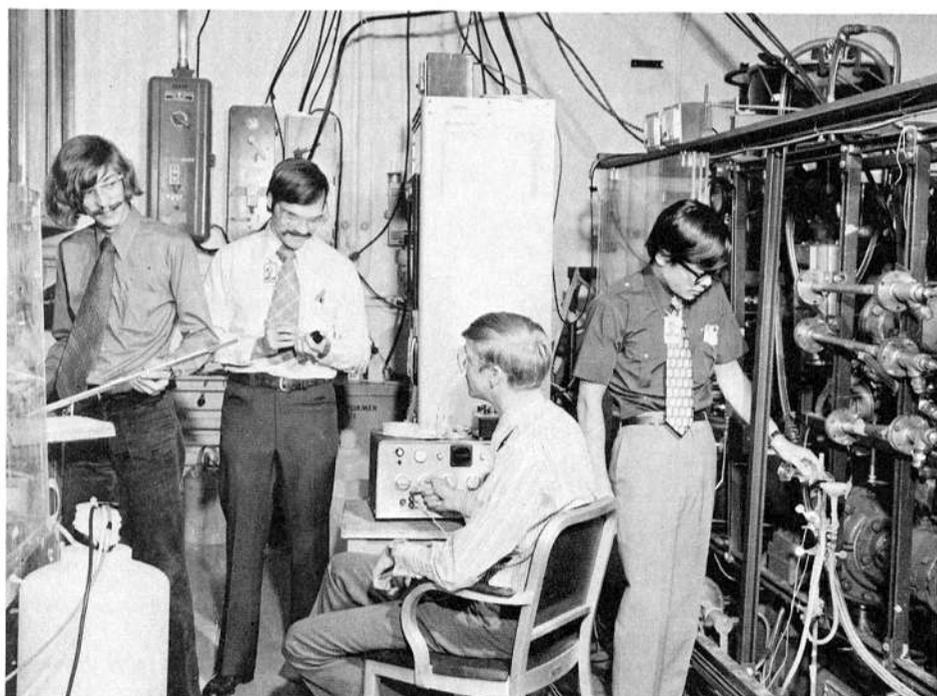
Nuclear Division employees who have attended the School include: Robert F. Bennett Jr., John E. Bigelow, Roger S. Carlsmith, Henry D. Cochran Jr., Richard S. Dillon, Mario H. Fontana, William L. Griffith, George Jasny, John R. Johnson Jr., Blynn E. Prince, Irving Spiewak, Don Steiner and Victor C.A. Vaughn. James C. Bresee, temporarily on loan to the AEC in Washington, is a former staff member and director of the School.

Mechanical inspectors awarded safety plaque

The Y-12 Plant's Mechanical Inspection Department, of the Product Certification Division, recently was recognized for an outstanding safety performance - working for 19 years and one-million manhours without a disabling injury.

The feat is considered especially noteworthy because of the nature of the work mechanical inspectors are involved in. They crawl inside large boilers, climb ladders to building tops to inspect cranes and structures, ride tops of elevator cars to assure equipment integrity and apply load and pressure tests in excess of design operating parameters to inspect equipment strength.

The plaque awarded was specially designed for the occasion by James C. Thompson, of the Mechanical Inspection Department, and artist Larry H. Bohanan, of Technical Information Services. It portrays a "coat-of-arms" for mechanical inspectors. Billfold-size replicas of the plaque were awarded to every member of the department.



TEAM WORK — Ted Bush, Larry Krussel, Eric Suuberg and Makoto Yonezawa check out equipment in one of the laboratories where project work is conducted.



OUTSTANDING SAFETY PERFORMANCE — Y-12 mechanical inspectors have been awarded a safety plaque for completing over one-million manhours without a disabling injury.

Division Retirees



Ellis



Mrs. Williams



Holloway



Hammock



Loveland



Nelson



Bishop



Abercrombie



Creekmore



Hammes



Thrower

Henry R. Lovelace, a supervisor in labor relations, Industrial Relations Division, lives at Route 1, Rockwood, Tenn. He has been with ORGDP since 1945.

Robert S. Nelson, a barrier operator in the Barrier Manufacturing Division, has been at ORGDP since 1947. His home is at Ten Mile, Tenn.

Grady E. Thrower, 143 Wellington Circle, Oak Ridge, is a chemical operator, Operations Division. He has been with ORGDP since 1944.

Roane State announces course offerings for winter quarter

Roane State Community College is offering 11 academic courses in Oak Ridge this winter quarter. Three of these are scheduled at the Y-12 Plant. They are:

Fundamentals of American Government (Political Science 1010), Tuesday evening.

General Psychology II (1020), Thursday evening.

Water Distribution (FST 2220), Section 1 on Monday evening, Section 2 on Tuesday evening.

Classes will meet from 5:30 to 8:30 p.m., once a week for ten weeks.

Registration for all courses being offered in Oak Ridge will be held Monday, December 17 from 4 to 6 p.m. at Fire Station No. 3, Illinois Avenue, near the Holiday Inn.

Questions concerning courses being offered may be directed to Ralph Pearson, 3-5493.

Seven ORGDP employees get promotions

Seven promotions have been announced recently at the Oak Ridge Gaseous Diffusion Plant:

David H. Beams, who joined Union Carbide this year, has been named a plant protection officer in the Plant Protection Division.

A native of Barbourville, Ky., Beams, who has worked for the Oak Ridge Police Department, now lives at Route 2, Ten Mile, Tenn. He is married to the former Leila J. Zenni of Oak Ridge.

Beams enjoys raising horses, Collie dogs and farming.

The Separations Systems Division has promoted Marvin C. Holloway to pilot plant foreman. Holloway, who has been at ORGDP since 1969, is a native of Crab Orchard, Tenn.

He is married to the former Opal F. Hassler and they have one child. They live at Crab Orchard, and he lists hunting and fishing as his hobbies.

Also named pilot plant foreman in the Separations Systems Division, is Ralph P. Lukat, who had worked at the Paducah Gaseous Diffusion Plant before joining ORGDP.

Lukat, a native of Louisville, Ky., is married to the former Mary Louise Sanders and they have two children. The family lives at 109 Sequoia Lane, Oak Ridge.

He lists boating, fishing, carpentry, and working on automobiles among his hobbies.

Sherman Matthews, who joined Union Carbide in January, 1973, has been named a design engineer in the Engineering Division.

Matthews, a native of Fort Pierce, Fla., has a B.S. degree in engineering from The University of Tennessee. He lives at 3816 Cate Avenue, Knoxville, and enjoys playing tennis.

John H. Peer has been named a pilot plant foreman in the Separations Systems Division.

Peer is a native of Newport, Ind., and had worked there for DuPont before joining Union Carbide 16 years ago. He has attended The University of Tennessee evening school.

Peer is married to the former Helen Human, and they have three children. They live at 692 West Outer Drive, Oak Ridge.

He enjoys hunting, fishing and bowling.

Another Separations Systems Division employee, Earl C. Stinnett Jr., has been promoted to pilot plant foreman.

Stinnett, who is from Friendsville, Tenn., attended Tennessee Wesleyan College, and joined ORGDP six years ago.

He is married to the former Marion K. Long and the family lives at Route 3, Lenoir City. They have two children.

Hunting and gardening are his hobbies.

Barrier Manufacturing's T. Gordon Sutton has been named an inspection foreman. He had worked with Wyle Laboratories, Huntsville, and the Lunkenheimer Valve Company, Cincinnati, before joining ORGDP four years ago.

Sutton is a native of Jamestown, Tenn. He has attended the University of Cincinnati night school and the Ohio Mechanics Institute, Cincinnati.

He is married to the former Leeta Rains and they have two children. They live at 824 Terrace Drive, Kingston, where he enjoys working with the Boy Scouts and camping and hiking.



Beams 73-2941



Holloway 73-3002



Lukat 73-3003



Matthews 73-3041



Peer 73-3004



Stinnett



Sutton

NUCLEAR DIVISION NEWS



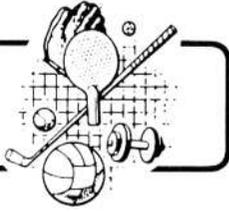
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James A. Young, Editor, Y-12
Ext. 3-7100
Ruby Miller, Assoc. Editor, ORNL
Ext. 3-6421
Keith Bryant, Paducah
Bell :369
Doug Carter, ORGDP
Ext. 3-3017

—Member—
APPALACHIAN INDUSTRIAL
EDITORS' ASSOCIATION
INTERNATIONAL ASSOCIATION OF
BUSINESS COMMUNICATORS

Office
Post Office Box Y
Oak Ridge, Tenn. 37830

RECREATIONOTES



Application for Tickets To Christmas Parties

FOR CHILDREN OF OAK RIDGE UNION CARBIDE EMPLOYEES
(AGES TWO-10 ONLY)
SATURDAY, DECEMBER 22

Plant

Employee's Name Badge No.....

Home Address

Plant Address

Number of Tickets (Children).....

Number of Tickets (Adults).....

— CHECK TIME PREFERRED —

Saturday, December 22 9 A.M. 11 A.M. 1:30 P.M.

Only 3:30 P.M. 5:30 P.M.

Please check first and second choice (write in space "1" or "2") as only a limited number of tickets will be issued for each party. Preference will be given early applicants and if tickets for first choice are exhausted, tickets for second choice will be issued.

Return this form, properly and completely filled in, to the Carbide Recreation Office, Building 9711-5, Stop 1, Y-12 Plant. Please apply for tickets before December 19. The required number of tickets will then be mailed to parents at their home or plant addresses.

ORGDP BOWLING

The ORGDP Women's League finds the Payoffs in the lead with the Bowlettes in second place. Bowler of the week honors went to Mary Foley who bowled a scratch game of 247 with a 601 scratch series!

The Demons have the number one slot in the Wednesday League, with the Sandbaggers in second place. P. E. Carter won the weekly prize with a 242 game.

Tuesday League leader is the Double X team with a commanding lead over the second place City Slickers.

Y-12 PLANT BOWLING

The Rollers are in the number one spot in the Y-12 Mixed League. The Splinters are trailing by only one-half point.

The Classic League finds the Ridgers in the lead, with the Eightballs and Splinters tied for second.

S. R. Smith of the Mini Strikes lead his team to first place in the "C" League by bowling an individual scratch game of 254. The Rounders and Sunflowers are tied for second place.

ORNL BOWLING

The Misfits still maintain their lead in the ORNL "A" League, with the Ten Pins in second place.

"C" League bowling finds the Remkeys holding their number one spot, with the Pin Heads moving up to second place.

The Ladies League finds the Pick-Ups still in first place, and the Striketettes maintaining their second place spot.

The Oops have taken the lead in the Carbide Family Mixed League, and the Lucky Strikers are in second place.

PADUCAH GOLF

Don't forget to send in your entry for the "separation" mixed scrabble golf tournament to be held December 15 at Paxton Park, Paducah.

ORGDP'S CHRISTMAS DANCE

A reminder of the annual ORGDP Christmas dinner-dance to be held December 15, 1973, at the Oak Ridge Civic Center. Social hour 6:30; dinner 7:30; and dancing at 9:30 p.m. Tickets are available throughout the ORGDP complex.

MISTLE TOE BALL

Don't forget to make plans to attend the Paducah Annual Mistle Toe Ball, which will be held at the Jaycee Civic Center on December 28.

PISTOL LEAGUE

There is still time to join the All-Carbide 22-Caliber Indoor Pistol League which is scheduled to begin its winter season on December 11.

Matches will be held each Tuesday evening from 6 to 8 p.m. at the Oak Ridge Sportsman's Association's indoor range. Any Carbide employee is eligible to participate in these matches.

Additional information may be obtained from R. C. Gwaltney, plant phone 3-7648.



Oak Ridge wartime years theme of planned exhibit

An advisory group of Oak Ridge scientists has begun working with staff members of Oak Ridge Associated Universities (ORAU) to make a history of Oak Ridge's wartime years a lively part of one of the many new exhibits planned for the new American Museum of Atomic Energy, scheduled to open in late 1974. ORAU operates the Museum for the Atomic Energy Commission.

Scientists involved

The three scientists are Arthur H. Snell, former Oak Ridge National Laboratory associate director for basic physical sciences; Ernest O. Wollan, former senior research staff member in the ORNL Director's Division; and Eugene Newman, research staff member of the ORNL Physics Division.

The three men are serving as an advisory committee to ORAU to assist in developing ideas and resources for a museum section on the history of nuclear science and the Manhattan Project in developing the world's first nuclear weapons. The story of the Manhattan Project will include a historical coverage of Oak Ridge and its vital part in the program.

The committee members are seeking to make the search for historical materials a community activity, and welcome suggestions and contributions by Oak Ridge residents, past and present - especially those who lived in the Atomic City during the wartime years.

Donations welcomed

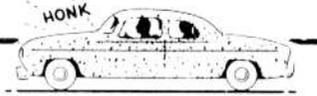
Particularly welcome are artifacts of the period: ration coupons; photographs exemplifying the city's "mud-and-dust" era; unusual tools, such as the nonferrous tools used around the huge magnets in the Y-12 Plant; and pertinent documents that may be copied and displayed.

Residents of Oak Ridge and surrounding communities who have material that they are willing to donate or lend for display in the new American Museum of Atomic Energy are requested to get in touch with John R. Butler, Museum Division, Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, Tennessee 37830; telephone 483-8411.



HISTORY OF OAK RIDGE — Arthur H. Snell and Ernest O. Wollan, former ORNL staff members, survey materials which will be used to compile a history of Oak Ridge's wartime years. The history will be one of the exhibits in the new American Museum of Atomic Energy, scheduled to open in 1974.

WANTED



ORGDP

RIDE WANTED or WILL JOIN CAR POOL from Valley View Heights section, Edgemoor Road, to K-1007 parking lot, 7:45 to 4:15 shift. Ellen Hughes, plant phone 3-3117, home Claxton 945-2451.

RIDE WANTED or WILL JOIN CAR POOL from Lenoir City to Portal 2, 7:45 - 4:15 shift. Bill Ghormley, plant phone, 3-3452, home 986-2988.

RIDE WANTED or WILL JOIN CAR POOL from Dixie Lee Junction to main portal, straight day. Loren Carey, plant phone 3-3258, home Knoxville 986-3152.

RIDE WANTED or WILL TAKE RIDERS from Coalfield to Portal 4, straight days. J. A. Fritts, plant phone 3-9269, home Oliver Springs 435-2489.

Y-12 PLANT

JOIN CAR POOL from Woodland Drive, Clinton, to North or Central Portal, straight day. C. W. Anderson, plant phone 3-7392, home 457-2687.

COMMUTE BY BUS — If you are interested in commuting from Fountain City through Halls and Powell area to the Y-12 Plant, any portal, please contact D. E. Underwood, Knoxville phone 922-6010. "H" and "J" shifts.

TWO CAR POOL MEMBERS WANTED from Norwood area, Knoxville, to any portal, straight days. W. K. Forrester, home phone 687-3294, plant 3-5923.

RIDE WANTED from Edgemoor Road, right across from Turners' IGA, to Central Portal, straight days. Teresa Parks, plant phone 3-5841, home Claxton 945-2032.

JOIN or FORM CAR POOL from Lovell Heights area, Kingston Pike, to North or Central Portal, straight days. Nancy Hunley, plant phone 3-7776.

JOIN or FORM CAR POOL from West Hills, Broome Road area, Knoxville, to Biology or Central Portal at Y-12, straight day shift. S. A. Reed, plant phone 3-5306, home phone Knoxville 693-9005.

FORM CAR POOL from Roderick Drive - Crestwood Hills area, Knoxville, to North or East Portal at Y-12, straight day shift. Ray Payne, plant phone 3-7942 or Knoxville 693-6944.

ORNL

JOIN CAR POOL from Sharp Street, North Clinton area to East Portal, 8 a.m. shift. Sherri B. Wright, plant phone 3-1360 or Clinton 457-2728.

JOIN CAR POOL from Elm Grove - Jackson Square vicinity, Oak Ridge, to East Portal, 8 a.m. or 8:15 a.m. shift. Frances Hurley, plant phone 3-4612, home phone 483-9944.

RIDE WANTED or WILL JOIN SMALL CAR POOL from Chilhowee Hills - Holston Hills - Burlington area, Knoxville, to East or South Portal, straight days. R. H. Powell, plant phone 3-6626, home Knoxville 524-0447.

RIDE or JOIN CAR POOL from East Knoxville area to East Portal, 8 or 8:15 a.m. shift. Tom Riley, plant phone 3-6371 or home phone Knoxville 523-1395.

JOIN or FORM CAR POOL from West Village area, Oak Ridge, to East Portal, either shift. Martha Gerrard, plant phone 3-1393, home phone Oak Ridge 483-0162.

The Medicine Chest

(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.

QUESTION: "Does regular exercise help lower a person's cholesterol?"

ANSWER: The results of several studies have appeared contradictory. Some have shown a decrease with exercise while others show little effect. The difficulty appears to be the type and amount of exercise used and how long it was continued before the effect was evaluated.



In 1955, Dr. George Mann and his associates at Harvard did a simple experiment which showed the effect of exercise on cholesterol. They hired four male medical students to eat all their meals at a research diet table at the Peter Bent Brigham Hospital in Boston. They were told they would not be paid until they satisfied all the requirements of the experiment. The amount eaten during the 10-week experiment was carefully recorded. During the first week they were asked to eat their choices of food and continue their usual scholastic activity and maintain their body weight at a stable level.

Then for four weeks, their daily caloric intake was doubled to almost 6000 calories. They were told they must not gain any weight and the only way to prevent it was strenuous exercise. In order to double their intake they ate great quantities of food and supplemented with candy bars and milk shakes. They had to work extremely hard three to four hours a day swimming, running and playing basketball to prevent any weight gain. During this time their cholesterol and other blood fat levels did not increase.

They then continued the same high calorie diet for three weeks without exercise. They quickly gained weight and, in all but one, their cholesterol levels rose rapidly. When they cut back their food intake and exercise to original levels during the last two weeks, their cholesterol and weight gradually came down.

Many different studies done since the Harvard experiment strongly suggest that in order to expect much effect on a person's cholesterol level, exercise must be vigorous, inflicting considerable demand on the cardiovascular system. It has to be a non-stop rhythmical activity such as running, jogging, jumping rope, swimming, cycling and perhaps basketball. As one becomes better conditioned the level has to be progressively increased and must become a way of life. Weight has to be held constant or lowered. These requirements may sound difficult, but many people have achieved them and say they feel marvelous, which after all is the most important reward.

QUESTION: "I am a diabetic and take insulin each day. I had always assumed I

had to boil my syringe and needle each time before using them."

ANSWER: If the syringe and needle are rinsed out and kept submerged in 98 percent isopropyl alcohol, there is no need to boil them. They, of course, must not be used by anyone else in the family. Plastic or metal tubes are available which have screw tops that make excellent storage cases and are especially useful while traveling.

QUESTION: "Please discuss surgical management of cancer of the breast."

ANSWER: There has been much publicity about a more conservative approach to operations for breast cancer. Unfortunately, this has caused women possibly facing this operation to question the advice for the standard radical mastectomy. Naturally, they want to avoid the radical operation if it would not jeopardize their chances for a cure.

Four basic operations are now being performed. The "lumpectomy" is just the removal of the tumor and immediately surrounding tissue. It, as well as the others listed below, may or may not be followed by radiation therapy. A simple mastectomy is the removal of the entire mammary gland. The modified radical mastectomy is the removal of the entire breast with a dissection and removal of the lymph glands in the axilla. In the radical mastectomy, the entire breast, all subcutaneous tissue, several chest muscles which extend to the axilla and the axillary contents are removed.

In some patients who have other physical disabilities or are quite old, a less radical procedure may be advisable. It is likely that in some special cases a procedure less radical than the radical mastectomy is all that is necessary under the special circumstances present. However, the precise criteria for adopting a more conservative approach have not been established. One of the difficulties is judging the "wildness" of the malignancy when the pathologist looks at a frozen and stained tissue section while the surgeon waits. The pathologist can determine whether or not a malignancy is present but judging its wildness requires much more careful study using different techniques to stain the tissue. It is not safe to biopsy the tumor, sew up the wound and wait for the study. Complete surgery needs to be done at the time the tumor is biopsied. If a complete study were possible, some tumors which are slow growing might be treated more conservatively. Unfortunately, even after meticulous study, such a decision is difficult. So, until much more work is done, the standard radical mastectomy is the safest procedure. A few experts are willing to do less but it would be unwise to request a less radical procedure if the surgeon and pathologist were uncertain.

COMPANY Service

20 25 30

Y-12 PLANT 30 YEARS

Six Nuclear Division employees at the Y-12 Plant mark 30 years of Company service early in December.



Mrs. Gable

Goins

Alydean W. Gable, a building services employee in Product Certification, is a native of Rockwood, Tenn. She lives there now at 833 N. Gateway Drive.

Max W. Goins, also of Product Certification, lives at Route 20, Knoxville. He is a native of LaFollette, Tenn.



Mrs. Humphrys

McGhee

Shirley B. Humphrys is in the Materials and Services Division. A native of Cumberland County, Tenn., Mrs. Humphrys home is now on Heatherbrook Road, Knoxville.

Maintenance Division foreman, James S. McGhee, lives at 248 S. Main Street, Clinton. He is a native Clintonian.



Loving

Ware

William T. Loving, also of the Maintenance Division, lives in Clinton. He is a native of Briceville, Tenn.

R. Stowell Ware, Engineering Division, lives at 100 N. Tampa Lane, Oak Ridge. A native of Salt Lake City, Utah, Ware received his B.S. degree from Bates College.

25 YEARS

Burnice Foriest, Manuel H. Clayton and John K. Jenkins.

20 YEARS

Alton G. Newman, Horace Ramsey, Albert T. Bradford, Don T. Abernathy, Samuel A. McSpadden, William A. Smith, Charles R. Posey and Chester H. Edwards.

Dorthea P. Lankford, James L. Hicks, George S. Weaver, Jack Gresham, David C. Weaver, Frank W. Atkinson, Walter M. Williams Jr., and Allen J. Blay.

Thomas A. Seddon, Elmer E. Lamb, Elijah G. Smith, Don McMurray, Emogene B. Griffin, Dean Justice, Lendon Daugherty and Carrell R. Johnson.

ORGDP 30 YEARS

Velma R. Moore, who attained her 30-year landmark in November, started her career with Union Carbide at the Oak Ridge National Laboratory. She transferred to ORGDP in 1948. Mrs. Moore is a secretary in chemical operations department, Operations Division. Her home is at 100 Hamilton Circle, Oak Ridge.



Mrs. Moore

25 YEARS

Clemmons H. Begley and Eugene J. Barber.

20 YEARS

Martin L. Taylor, Jacob F. Simmons Jr., Willard J. Moore and Homer F. Wright.

Fred H. Grubb and Charles L. Eller.

GENERAL STAFF 30 YEARS

William M. Reynolds, a native of Chattanooga, lives at 109 Ulysses Lane, Oak Ridge. He is in the Purchasing Division.

ORNL 30 YEARS



Bridges

Barnett

Maurice B. Bridges is a senior engineering draftsman in the Engineering Division. He and Evelyn Marie, his wife, live at 521 Moody Avenue, Knoxville. They have two sons and four grandchildren.

Clarence F. Barnett is from Sweetwater, Tenn. He is a group leader in the Thermonuclear Division. He has two sons and a daughter, and enjoys gardening in his spare time. He and Elizabeth, his wife, live at Route 4, Lenoir City.

20 YEARS

James A. Yount, Cecil B. Kincaid, Thomas C. Tucker, Carolyn B. Coleman and Kenneth L. Elkins.

73-2939

Nuclear Division Deaths

Ray D. Norris of the Shinliver Community, Clinton, an employee at the Oak Ridge Gaseous Diffusion Plant, died in The University of Tennessee Hospital November 13. He was a maintenance mechanic in the Fabrication and Maintenance Division.



Mr. Norris

Mr. Norris had been with ORGDP for 21 years, and had served in the U.S. Air Force during World War II.

He is survived by his wife, Thelma T. Norris; two sons, Mitchell and Alan Norris; two daughters, Jean and Elaine Norris; (Jean works in Product Engineering at the Y-12 Plant) mother, Mrs. Don Norris; and a sister.

Funeral services were held November 16 in the chapel of Weatherford's Mortuary with Mr. John O. Payne officiating. Interment was in Phillips Cemetery, Cookeville, Tenn.

Woodrow W. Davis, a supervisor in ORNL's Isotopes Division, died November 22 while on a fishing trip with his son at Norris Lake.



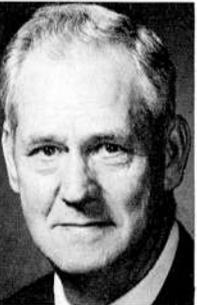
Mr. Davis

Mr. Davis, who was born in Husk, N.C., graduated from Wake Forest University. He joined the staff at the Y-12 Plant in 1944 and later transferred to ORNL.

Mr. Davis is survived by his wife, Mrs. Frances Devereaux Davis of 504 Scenic Drive, Clinton; sons, Ben and Eric Davis; a daughter, Mrs. Harold Fell of Oak Ridge; a grandson; five sisters and a brother.

Funeral services were held in the Chapel of Holley-Gamble Funeral Home on November 24. Interment followed in Oak Ridge Memorial Park.

Arent C. Partridge, mechanical instrument maker in the Plant and Equipment Division at ORNL, died November 19. He had worked at ORNL for over 26 years.



Mr. Partridge

Survivors include his wife, Mrs. June Sturgeon Partridge, 1514 East Crawford Street, Maryville; a son, Eugene Partridge of Georgia; a daughter, Mrs. Don Maples of Knoxville;

four sisters and three grandchildren.

Funeral services were held at Smith Mortuary, Maryville, on November 21. Interment followed at Grandview Cemetery.

FORMER NUCLEAR DIVISION EMPLOYEES

Lawrence B. Elliott, retired Y-12 truck driver, died recently in The University of Tennessee Hospital. His home was on Red Hill Road, Andersonville, Tenn.

Lucille W. Pruitt of 101 Valparaiso Road, Oak Ridge, also a Y-12 retiree, died November 9. She had worked as a record clerk from 1955 to 1970.

Paul C. Hauber, a design engineer who retired this year from the Oak Ridge Gaseous Diffusion Plant, died on November 14 at the Fort Sanders Presbyterian Hospital, Knoxville.

Prentice D. Wirey, a retired Y-12 Plant machinist, died recently in the University Hospital, Knoxville.

Wallace W. Whitehouse died November 11 at Oak Ridge Hospital. He was an electrical foreman in the Plant and Equipment Division at ORNL.



Mr. Whitehouse

Mr. Whitehouse was born in East Milton, Mass., but had lived in East Tennessee since he was 12 years old. He started work at ORGDP in 1945 and later transferred to ORNL.

Survivors include his wife, Mrs. Mary Hackney Whitehouse of 2880 Oak Ridge Turnpike; two sons, Ronald W. Whitehouse who works at ORGDP, and Richard E. Whitehouse who is stationed with the Air Force in New Mexico; his mother, Mrs. William Dalton of Dania, Fla.; and two brothers, Kenneth S. Whitehouse, a machinist at Y-12, and Dr. Robert W. Whitehouse of Miami, Fla.

Funeral services were held November 13 in the chapel of Weatherford Mortuary. Interment followed in Oak Ridge Memorial Park.

Sidney R. Anderson, a foundry foreman in Metal Preparation at the Y-12 Plant, died November 13 in route to the Oak Ridge Hospital.



Mr. Anderson

Mr. Anderson, a native of Spartanburg, S.C., came to the Y-12 Plant in 1944.

He is survived by his wife, Virginia Collins Anderson, 168 N. Jefferson Circle, Oak Ridge; a daughter, Mrs. Frederick Dotson, Salem, Va.; a granddaughter; father, Benjamin Anderson; a sister; and two brothers.

Services were held November 15 in the Oak Ridge Church of God with the Rev. James Bandy officiating. Burial was in Oak Ridge Memorial Park.

James R.L. Baker, a millwright in the Plant and Equipment Division at ORNL died November 22 at a Knoxville hospital.



Mr. Baker

Mr. Baker had worked at ORNL since July 5, 1951. He was a member of Calvary Baptist Church, Avery Lodge No. 593 and Scottish Rite, Knoxville Consistory.

Survivors include his wife, Mrs. Helen Price Baker of Highland Avenue, Loudon; two daughters, Vicki Lynn and Nancy Jane; mother, Mrs. J.J. Baker of Lenoir City; and four sisters.

Funeral services were held in the chapel of Hawkins Funeral Home in Lenoir City, November 23. Burial followed in Lakeview Cemetery.

Y-12 credit union to hold annual meeting in January

The Y-12 Plant Employees Federal Credit Union will hold its 1974 annual meeting Thursday, January 24, 7 p.m., at the Robertsville Junior High School.

A nominating committee, consisting of J.W. Ebert Jr., J.M. Seivers Jr., and P.L. Holland, has been appointed to present nominees for the two positions on the Board of Directors and the one on the Credit Committee to be filled by election at the meeting.

Although the Y-12 Credit Union has over 6,000 members, only a small fraction of those attend the annual meeting. To permit greater participation by the membership in making nominations, the Credit Union amended its bylaws last year to provide an opportunity for nomination by petition. The bylaws preclude nominations from the floor at the meeting.

A nomination petition must be signed by at least two percent of the membership. At present, 124 signatures are required for a valid petition. All persons signing a petition must be members of the Credit Union in good standing. Members in good standing are those who have signed individual membership cards, paid individual membership fees, have been accepted by the membership officer, and are 16 years of age or older. Petition forms are available at the Credit Union office.

Calendar of EVENTS

TECHNICAL December 1

Biology Division Seminar: "Translation of Viral RNA in Wheat Germ Embryo," Paul Kaesberg, University of Wisconsin. Small Conference Room, Building 9207, 12:15 p.m.

COMMUNITY December 8-9

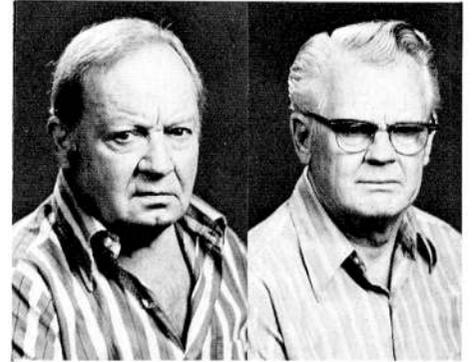
Junior Playhouse presents: "The Pied Piper of Hamelin." Oak Ridge Playhouse, 1 and 3 p.m.

Division Retirees

Four Y-12 Plant Maintenance Division employees retired November 30. Taking normal retirements were:

William T. Fry, process maintenance, was an outside machinist. Fry, a native of Swain County, N.C., lives at 237 Hillside Road, Oak Ridge.

Electrician Theodore R. Keirn, also of process maintenance, is a native of Arrow, Pa. His home is at Route 2, Madisonville, Tenn.



Fry

Keirn



Myers

Thomas

Hubert Myers lives at 319 Jefferson Avenue, Oak Ridge. He was a carpenter in the buildings, grounds and maintenance department. Myers is from Cades Cove, Tenn.

Samuel F. Thomas, area-5 maintenance, is retiring to his Route 2, Oliver Springs, home. He is a native of Old Fort, N.C.

Richard B. Lindauer retired from ORNL recently. He was a senior development specialist in the Chemical Technology Division.



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