

NUCLEAR DIVISION NEWS

UNION
CARBIDE

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

Vol. 1 — No. 16

OAK RIDGE, TENNESSEE

Thursday, September 11, 1970

AEC to Up Enrichment Cost by 10%

The Atomic Energy Commission has announced an increase in its charge for uranium enrichment services, from \$26 to \$28.70 per kilogram unit of separative work, effective February 22, 1971.

The AEC also announced the establishment of new pricing criteria effective immediately which are the basis for developing the new enrichment services charge.

The new criteria would base the enrichment charge on the estimated cost of "separative work performed in new uranium enrichment facilities, designed, constructed and operated primarily to meet commercial markets, using debt-equity ratios, rates of return on investment, and appropriate allowances for federal corporate income taxes, state and local taxes and insurance deemed by the Commission to be appropriate for a private industrial enriching enterprise." The previous criteria had determined that prices be set on a basis to "assure the recovery of appropriate Government costs" for work done in existing Government plants.

Present Charge \$26

Enrichment of uranium in the fissionable isotope U-235, which makes up only seven-tenths of one percent of natural uranium, from U-238 is carried out at three gaseous diffusion plants at Oak Ridge, Paducah, Ky., and Portsmouth, Ohio.

The present charge of \$26 per unit of separative work was announced by the Commission September 21, 1967. It was applied to toll enrichment services when they began on January 1, 1969. The provision of toll enrichment services was authorized by the Private Ownership of Special Nuclear Materials Act of 1964. Domestic and foreign contracts with the AEC for toll enriching services to be performed over the next 30 years now exceed \$1.5 billion.

Approximately 10 Percent

A separative work unit is not a quantity of material but is a measure of the effort expended in the plants to separate a quantity of uranium of a given assay into two components, one having a higher percentage of U-235 than that in natural uranium. The new \$28.70 price per unit is an increase of approximately 10 percent.

The \$28.70 price is also used in a revised schedule of base charges for enriched and depleted uranium which AEC offers for lease. The new criteria make no change in the current ceiling price of \$30 per unit (as escalated for the cost of power and labor).

Clark Center Park to Close For Season on September 11

The Recreation Department announces the closing of the swimming area at Clark Center Recreation Park, effective Friday, September 11. There will be no life-guard at the lake after Friday.

The guards and caretakers will no longer be at the Park after Sunday, September 13. The Park is still open then, but permits must be obtained through the respective Recreation offices.



CERTIFIED PROFESSIONAL SECRETARIES—Union Carbide Corporation's Nuclear Division has four new Certified Professional Secretaries. From left are: Irene Gentry, Eileen Walbrecht, Doris E. Simpson, and Wilma Baldry. They will receive their CPS certificates at a seminar for career secretaries to be held September 25 at the Holiday Inn, Oak Ridge.

Employment and Payroll Up

The Atomic Energy Commission's program of research and production at Oak Ridge registered significant increases in both employment and payrolls during 1969.

E. A. Wende, Deputy Manager of the AEC's Oak Ridge Operations, announced that the 1969 average employment for the AEC and its major contractors at Oak Ridge rose to 14,902 (596 over the previous year) and that the combined payroll totaled \$147,619,448.

Wende said the 1969 employment figure represents a 4.2 percent increase over the 1968 total of 14,306 and that the payroll increased 7.6 percent over the 1968 payroll of \$138,140,398. The 1967 totals were 13,872 and \$127,218,244, respectively.

"Continued growth in both employment and payroll over the past several years is a reflection of the effective manner in which our AEC and contractor organizations have accomplished important assignments in the field of nuclear energy," Wende said. "These figures also underscore the beneficial effect of our activities in the State of Tennessee."

VOTER REGISTRATION

The law states that voter registration books close exactly 30 days prior to an election.

Thus, if you plan to vote in the November 3 election this year, you must be registered by October 3.

As would be expected, the host city led area communities in the number of employees, 6,145 (41.2 percent) and total payroll, \$66,778,776 (45.2 percent) resulting from AEC programs in Oak Ridge.

As has been the case in recent years, however, more than half of the Oak Ridge employees (58.8 percent) lived outside the City of Oak Ridge, traveling to work from a number of other Tennessee cities and towns. Commuters totaled 8,757 in 1969 and they had wages of \$80,840,672. Some 200 Oak Ridge workers traveled more than 50 miles one way to their jobs in the nuclear energy program.

Oak Ridge programs also continued to be a major source of employment for Knoxville residents. During 1969, an average of 3,072 Knoxville area residents reported to jobs in Oak Ridge and took home paychecks totaling \$29,842,410. Both figures represent about 20 percent of the overall Oak Ridge payroll and employment.

Employment in Oak Ridge atomic energy programs is divided among AEC and its principal contractors which are Union Carbide Corporation, Oak Ridge Associated Universities and the University of Tennessee. The 1969 figures do not include employment and payrolls associated with construction activities in Oak Ridge.

Pass Rigid Tests

Nuclear Division Secretaries Earn Coveted CPS Certificates

Four Nuclear Division secretaries have achieved the status of Certified Professional Secretary. They are Wilma Baldry and Eileen Walbrecht, Oak Ridge; Irene Gentry, Powell; and Doris Simpson, Knoxville.

The four will receive their CPS certificates at a seminar for career secretaries to be held September 25 at the Holiday Inn in Oak Ridge. The certificates will be presented by Mrs. Rachel Slover, President of the Tennessee Division, National Secretaries Association.

The Certified Professional Secretaries program is sponsored by the National Secretaries Association. In order to qualify as a CPS, candidates must pass a comprehensive examination covering such subjects as personal adjustment and human relations, business law, business administration, secretarial accounting, and secretarial skills and procedures.

Usually, a minimum of one year of study is required before a candidate can successfully complete the examination.

Wilma Baldry is secretary to W. D. Burch of the Chemical Technology Division, Oak Ridge National Laboratory. She joined Union Carbide in 1966. Prior to that time she had worked for the Tennessee Valley Authority. She is married to Ronald H. Baldry who works for Tennecomp Systems, Inc., Oak Ridge.

Irene Gentry has been secretary to J. Alton Elkins, Financial Manager for Carbide's Nuclear Division, since 1962. Prior to that she was employed at the Oak Ridge Gaseous Diffusion Plant. She is married to David Gentry who is employed in the Maintenance Division at the Oak Ridge Gaseous Diffusion Plant.

Doris Simpson, who has been

with the Nuclear Division since 1968, is secretary to D. A. Jennings, Maintenance Division, Y-12. Her husband is a physicist in the Metals and Ceramics Division, Oak Ridge National Laboratory. Mrs. Simpson has a bachelor of science degree from The University of Tennessee and also has taken courses at the University of Maryland.

Eileen Walbrecht is secretary to J. M. Anderson, Finance and Materials Division, ORGDP. She has been with Union Carbide since 1961. She is married to Tommy Walbrecht, and they have a daughter.

The addition of the four new CPS's brings to 30 the number employed in the Nuclear Division facilities.

U. S. Savings Bond Drive Big Success

More than 2,300 Nuclear Division employees signed up to purchase U. S. Savings Bonds during the August drive at the Oak Ridge facilities.

W. E. Williams, General Chairman of the bond drive, said the drive was "highly successful." He expressed his appreciation to the drive committee, solicitors and to all employees who helped make the campaign a success.

Williams said that while some reports remain outstanding, a total of 2,336 employees at the Oak Ridge Gaseous Diffusion Plant, Oak Ridge National Laboratory and Oak Ridge Y-12 Plant signed up for the purchase of bonds through the payroll savings plan. Prior to the start of the drive, only 679 employees were participating in the drive. Coupled with the new participants, a total of 3,125 persons is now participating in the program.

Participation by facility is as follows: Oak Ridge Y-12 Plant, 1,359; Oak Ridge National Laboratory, 972; Oak Ridge Gaseous Diffusion Plant, 616; and General Staff, 178. On the basis of these figures, 23 percent of Division employees in Oak Ridge are participating in the payroll savings plan.

In addition to the drive in Oak Ridge, a highly-successful campaign was staged earlier this year at the Paducah Gaseous Diffusion Plant. As a result, 215 employees at Paducah are now purchasing U. S. Savings Bonds through the payroll savings plan.

Williams said he appreciated the response to the campaign in all facilities. "I want to extend my thanks to all those who helped to make this drive such a success," he commented.

Heading up the savings bond drive at the Oak Ridge facilities were: L. A. Studinger, Oak Ridge Gaseous Diffusion Plant; Edward A. Pluhar, Oak Ridge Y-12 Plant; Hezz Stringfield, Oak Ridge National Laboratory; and Guy V. Tucker, General Staff.

'Question Box' Set For Future Issues

Do you have questions about company benefits which have been left unanswered? Are there some points you would like clarified about certain policies, or various aspects of your work? If so, **Nuclear Division News** may be able to lend a helping hand.

A new column, "Employee Question Box," is being instituted as a regular feature in **Nuclear Division News**. Here's how the new service will work:

If you have a question for which you want an answer, send it along to **Nuclear Division News**. You don't have to sign your name to your request for information. The editor of the News will get you an answer, which will appear promptly in the plant newspaper.

However, if you want a **personal response** to your inquiry, sign your name and indicate your work location. The person most capable of answering your question will get in touch with you with the information you desire.

Address all inquiries to Editor, Nuclear Division News, Building 9704-2, Oak Ridge Y-12 Plant.

ORGDP's Testing, Inspection Department Keeps Close Tabs on Pressure Valves

(Editor's Note: A description of the Equipment Test and Inspection Department of the Laboratory Division of the Oak Ridge Gaseous Diffusion Plant typifies the measures taken in the Nuclear Division to protect the individual from natural hazards. Since the pressure systems described at ORGDP are also prevalent in Y-12, the article fits one plant as well as another.)

Do you work in the vicinity of pressure systems or equipment? Chances are that you do. But you need not be alarmed. You are well protected against unsafe pressures throughout the life of the pressurized system or equipment.

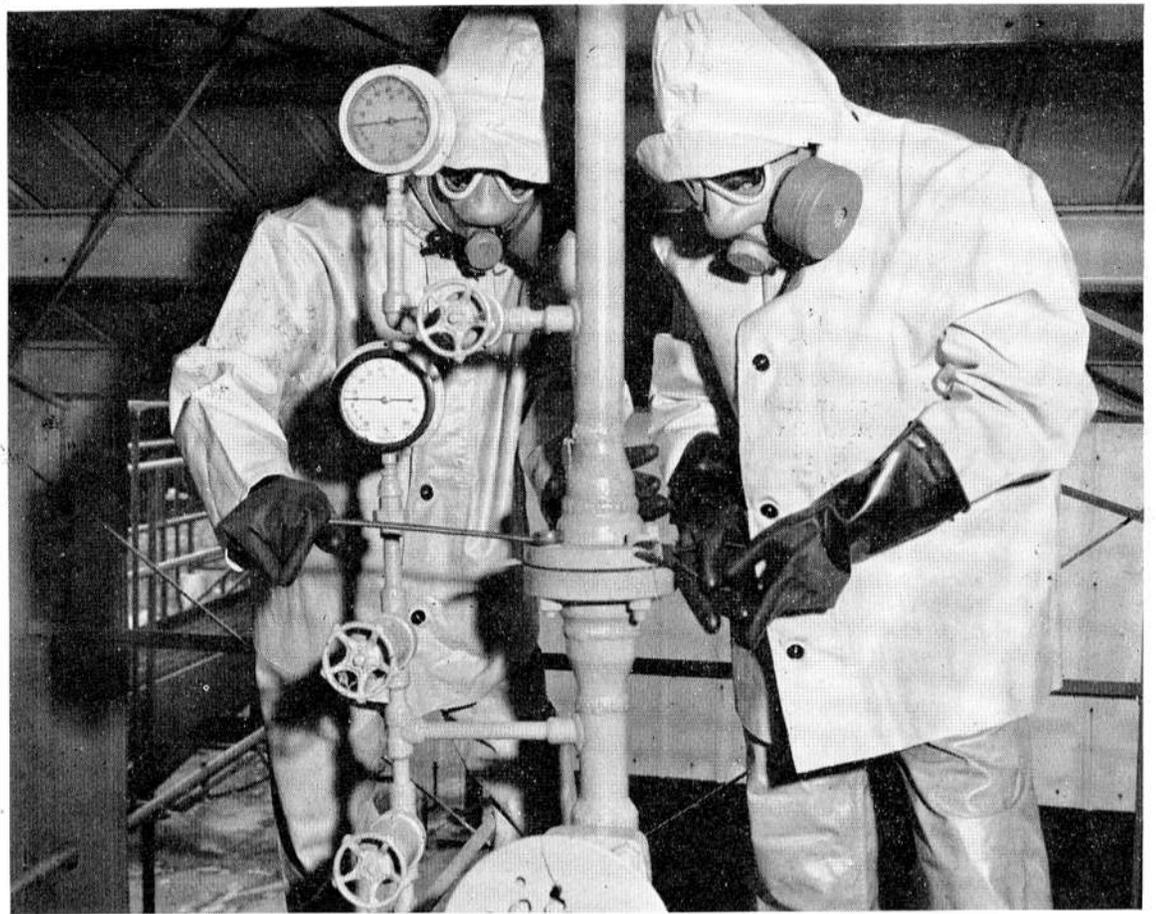
While we normally associate pressure systems and equipment with operating and production facilities, we may fail to realize that there are pressure sources in almost all work environments. Our office and auxiliary buildings may contain steam heating systems, water heaters, air conditioning units, cylinders, and other pressure sources. However, every effort is made to assure that all pressure systems and equipment are designed, operated, and maintained in strict compliance with nationally accepted safety codes, plant standards, and Atomic Energy Commission and other regulations. As a final safeguard against excessive pressures, pressure relief devices are provided which will automatically vent off unsafe pressure accumulations be-

fore the design pressure of the system or equipment can, for any reason, be exceeded. These pressure relief devices are then inspected, tested, and maintained throughout the entire service life of the equipment on which they are installed. Inspection, test, and maintenance of pressure relief devices are among the many mechanical safety functions performed by the Equipment Test and Inspection (ET&I) Department of the Laboratory Division in ORGDP.

Variety of Designs

What are these pressure-relieving devices which protect us from pressure hazards? They are generally safety or relief valves utilizing a spring which holds a disc against a seat; when the system's pressure exceeds the spring loading, the disc lifts and the pressure is safely relieved. Some valves are remotely operated by instruments rather than by conventional springs. Occasionally, a thermostatic bellows assembly or fusible metal is included in the valve design which will permit the valve to relieve excessive temperatures as well as excessive pressures. Still another common type relief device is a thin disc or diaphragm which will rupture at a specified pressure. All such devices may generally be referred to as pressure relief devices.

Designs for new pressure systems are reviewed by specialized staff groups for compliance with



PROTECTIVE CLOTHING—No men from Mars are these repairmen replacing a ruptured disc on an HF storage tank. Although the ruptured disc has been valved off from the tank and purged to remove entrained vapors, the mechanics are required to wear protective clothing and equipment to protect them in the event of an unforeseen release.

fire protection and personnel, nuclear, and mechanical safety requirements. The adequacy of pressure relief protection is one of the primary design review considerations of the ET&I Department.

Periodic Inspection

Pressure relief devices for new installations are routed through the ET&I Shop where they are checked to insure that they are of an approved type, size, and pressure setting. If approved, they are tested, cleaned, adjusted, and serviced as necessary. Those that operate safely at the specified pressure settings are sealed so that no further adjustments can be made without proper authorization. The relief devices are then installed on the system. Some pressure relief installations have a stop valve below the pressure relief device and in all such instances, these stop valves are sealed in the open position.

Pressure relief installations are inspected when installed, and periodically thereafter, by a qualified boiler and pressure vessel inspector. If the inspector finds any inadequacy, such as malfunction of a relief device or a broken or missing seal, he promptly calls this to the attention of the Shop. The device is removed, tested, re-



COMBINATION VALVE REPAIRED—Lee Davidson, left, repairs a pressure-temperature water relief valve while Roy Runions pressure tests an air relief valve. After repairing the valve, Davidson will test it to make sure it will work properly under both high-pressure and high-temperature conditions.

sealed and reinstalled. As further assurance that pressure relief devices will continue to operate safely, they are periodically tested or replaced on a fixed schedule.

Specialized skills and equipment are required for safe and efficient testing and servicing of the many pressure relief devices installed in the accompanying photographs.

Valves Identified

The work of maintaining pressure relief devices sometimes requires the use of special precautions and protective clothing and equipment.

As each new valve is installed, it is assigned a number which is retained throughout the service life of that valve. This number is stamped on a metal tag and permanently affixed. Equipment data processing machines are used for scheduling relief devices for test and inspection, for maintaining a service history of each device, for evaluating the results

of the inspections and tests, and for other information associated with the relief valve program.

U.T. Graduate School Sets Registration September 22

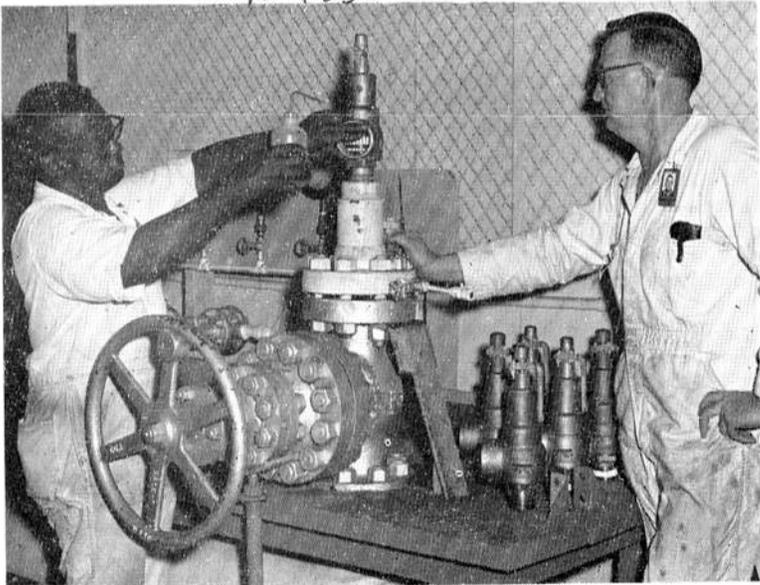
The Oak Ridge Resident Graduate Program of The University of Tennessee has announced its Fall schedule. September 22 is the last day for registration, with classes to begin on the 24th.

Classes will extend through December 8.

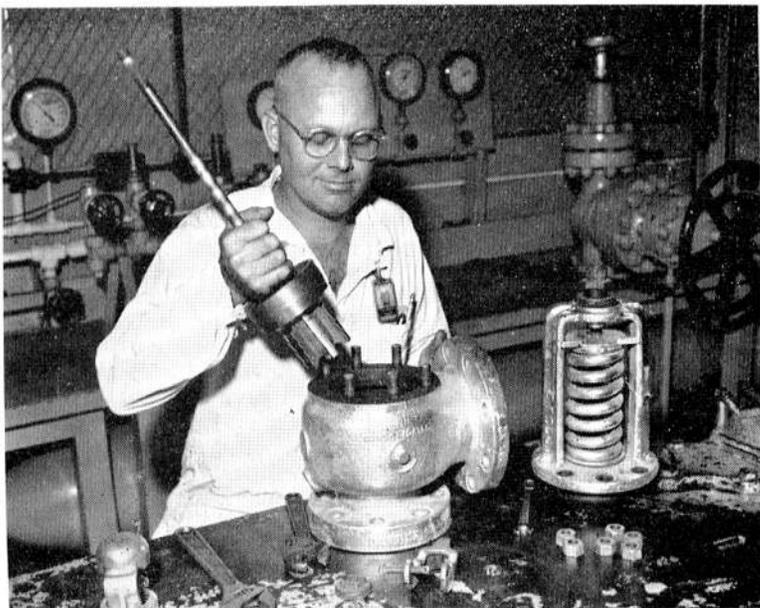
Additions in courses this quarter include new life sciences, new engineering courses, and a new course in environmental engineering.

Additional information may be obtained from the U.T. graduate office on Laboratory Road, or by calling them on extension 3-4129.

If you want to be lucky, trust in something more substantial than luck.



TESTING FOR AEC—Oscar Wright, left, and Mack Harvey test one of the several safety valves for use on new Atomic Energy Commission boilers in Oak Ridge, this particular one located in the DTIE Building.



DISASSEMBLY INSPECTION — Ed Hamilton in ORGDP's Test Shop disassembles a safety valve which is used on the steam plant boilers. After the valve has been cleaned and repaired, it will be tested to insure safe operation at the correct pressure without leakage.

NEWS

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NUCLEAR DIVISION

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Member



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THE CARBIDE COURIER

Thursday, September 11, 1970

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SYMPOSIUM PARTICIPANTS—The above participated in a recent mathematical programming symposium. Seated, left to right, are Jim Park, Bob Ebel, Chairman of the Continuing Education Committee of A.I.Ch.E. and John Hawthorne. Standing are Steve Blum, Ken Cross, Gary Westley and Brady Holcomb.

ORGDP Mathematicians Attend AIChE Symposium on Programming Problems

Five mathematicians from the Applied Science Department, Computing Technology Center, and one from the Mathematics Department at Oak Ridge National Laboratory are today completing a mathematical programming symposium for the Knoxville-Oak Ridge Section of the American Institute of Chemical Engineers. The final session will be held tonight in conference room W-18 of the ORAU Training Building starting at 7:15. Ken Cross will discuss non-linear programming to be followed by Jim Park, presenting Lagrangian multipliers.

Previous sessions of the symposium were held on September 8 and 9. The leaders and their subjects were: John Hawthorne — Linear Programming, Brady Holcomb — Integer Programming, Steve Blum — Dynamic Program-

ming, and Gary Westley (ORNL) — Geometric Programming.

Engineering and scientific work increasingly requires the development of a mathematical model to describe a system, and then the solution of the model to identify the operation of the system. The symposium was aimed at introducing members of A.I.Ch.E., and other interested persons, to modern modeling and optimization techniques.

R. A. Ebel, Operations Analysis, Chairman of the Continuing Education Committee of A.I.Ch.E., organized the symposium.

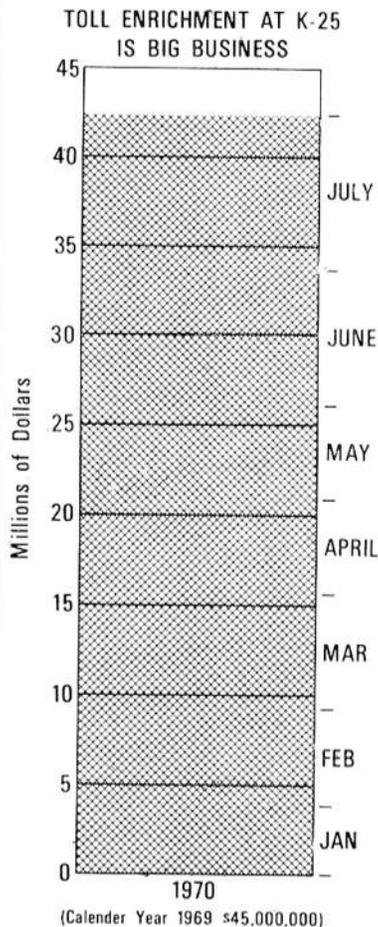


Carpool member wanted from vicinity of Louisiana-Robertsville Road to Portal 4, 8:00 to 4:30. L. D. Sweeden, phone 483-8370.

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COMPLETE PROGRAM—Holding their achievement award plaques for completing the helper training program are J. M. Kirkpatrick, Jr., left, electrical mechanic; K. E. Bain, maintenance mechanic; and T. L. Hatcher, carpenter. W. E. Rooks, left, and J. M. Ellis, right, made the presentations.



Alice Hudson Gets Degree at Peabody



Alice Caroline Hudson

Alice Caroline Hudson, daughter of George H. Hudson, Electrical Maintenance, received a master's degree in Library Science from George Peabody College for Teachers, Nashville, on August 16, 1970. She is a 1965 graduate of Oak Ridge High School and in 1969 graduated with a B.A. in geography from Middle Tennessee State University in Murfreesboro, where she was elected to membership in Pi Gamma Mu, National Social Science Honorary Fraternity.

While a student, Alice worked in the Todd Library at Middle Tennessee and the Peabody Division of the Joint University Libraries in Nashville. She spent a summer in New York City working as a page for the New York Public Library in 1966. She has accepted a position as a librarian with the New York Public Library and will begin work September 14.



NEW CAMERA-PLATEMAKER—Ruby Kerley, Central Reproduction, is preparing to operate the new camera-platemaker, recently installed here.

Reproduction Installs New Platemaker For Offset Printing Press at K-25 Plant

Central Reproduction, of the Finance and Materials Division, has installed a camera-platemaker that produces a plate for the offset presses in seconds.

The printing plant, located in D Wing, K-1001, produces work for the three Oak Ridge installations with technical publications comprising the bulk of their work. They also print forms, brochures, labels, and a multitude of other types of work as required.

Normally, when a report is delivered to Central Reproduction for printing, a photographic negative is made of each page. All imperfections in the negative are removed by "opaquing." The negative is then exposed to an aluminum plate, the plate is developed and then placed on one of their offset presses.

With the new camera-platemaker, copy is placed under a glass, exposure time is determined according to the lightness or darkness of the copy, a toe switch is pressed, and in seconds a plate emerges ready for the press.

After the plate is exposed the automatic processing begins. The plate passes through a developer solution, a developer rinse, an activator solution, another rinse, and then is dried automatically. Work can be performed in normal room light and with a wide range of exposures. Copy can be re-

duced to 45 percent or enlarged to 150 percent.

Central Reproduction will, of course, continue using the photographic negative system because of the voluminous reports containing photographs and drawings that must be reduced or enlarged and inserted into the negative of the copy. Copy also must be photographed and plates made for work that is to be printed on one of their Harris (17"x22") presses.

The new camera-plate systems makes plates only for the small presses, although it has been estimated that approximately six thousand pages annually will be produced by this new and less expensive system.

Graduates with Honors From Freed - Hardeman



Debbie Gross

Debbie Gross, daughter of Captain Alvis Gross, Plant Protection Department, graduated cum laude this spring from Freed-Hardeman College (a two-year college) at Henderson, Tenn. She has been accepted at Harding College in Searcy, Ark. In her last semester at Freed-Hardeman, Debbie placed on the President's list, the top honor of the college.

Debbie is a graduate of the Oak Ridge High School where she was a member of the National Honor Society. At Harding she plans to major in elementary education.

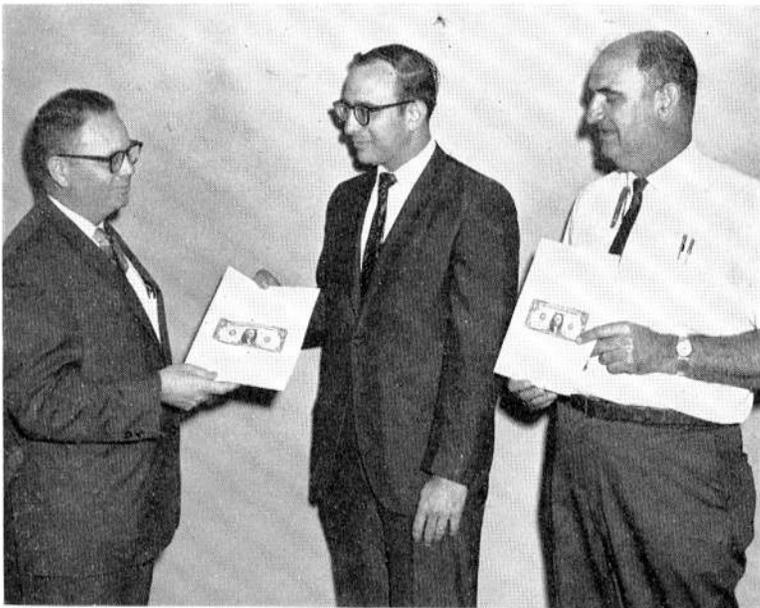
K-25's Construction Set By New Contracts Here

The Atomic Energy Commission has awarded a contract to two Knoxville firms in a joint venture for construction work here at ORGDP.

The contract, totaling \$255,829, was awarded on the basis of competitive bids to Knoxville's Southeast Construction Company and J. E. Willard, contractor.

Under the contract the firms will erect a prefabricated building and construct an office building as additions to an existing facility here.

Work will begin in early September and will be completed in about seven months.



PATENT AWARD RECIPIENTS—Richard W. Wavrik, center, and Walter S. Wendolkowski, right, were presented patent application awards recently by E. C. Evans, superintendent of the Separation Systems Division. These awards were received for the development of high performance components for process machinery at ORGDP. Both Wavrik and Wendolkowski were in the news recently receiving patent awards for development work they are engaged in, along with others in the division.

Engineering

By F. Dodge



Cynthia Maureen Patton

Miss Cynthia Maureen Patton will become the bride of Mr. Richard Lee Meeks on September 12, at the First Methodist Church in Oak Ridge. She is the daughter of Mr. F. S. Patton of Engineering Division and Mrs. Patton.

Both Miss Patton and Mr. Meeks are students at the University of Tennessee, Knoxville.

SAFETY SCOREBOARD

OUR PLANT
Has Operated
57,000 Safe Hours
Through September 3
Since last disabling injury on August 31

Lifting Platforms and Jacks Are Placed In Service on Emergency Vehicle Here

A fixture, consisting of a heavy steel band with lifting platforms and two 10 ton mechanical jacks, is being placed in service on the plant emergency truck. The fixture is designed and tested for making close-quarter lifts of one end of the 10 and 14 ton cylinders of UF₆ being handled in large

numbers around the plant. The design for the lifting fixture was worked out between K. C. Roberts of the Machine Design Section of Plant Engineering and members of the "C" Shift plant emergency groups (emergency squad and plant protection employees).



CYLINDER LIFTING FIXTURE—Captain W. R. Johnson, R. E. Thompson, E. D. Hensley, and L. P. Edwards, left to right, demonstrate the placement of the band and jacks on a 14-ton cylinder. K. C. Roberts, insert, Machine Design Engineering, coordinated the design of the fixture.

Alvin Boatwright Does It Again as K-25 Closes Green Races at Whittle Springs

Alvin Boatwright shot a four-under-par 66 to win medalist honors in the final K-25 golf tournament of the current season. Willard Moore and Cedric Patton tied for low handicap score, both had net 69's. The plant's final tournament was held Saturday, August 29, at Whittle Springs, Knoxville.

John Cobb had the low scratch score in the second division with a 74 and Bob Napier ended up with a net 67 for the best handicap score.

John Goss had the best scratch

score in the third division—a 75. P. K. Sherrill's net 62 was the low handicap total in this division.

DIVISION I

Front Nine		Back Nine	
A. S. Boatwright	33	C. S. Patton	31
W. J. Moore	34	A. S. Boatwright	33
E. M. Bordes	35	Ed Bordes	35
F. Copeland	35	Pete Leslie	35
Gene White	35	W. J. Moore	35
Jim Winters	35	R. L. Bedwell	36
Joe Tuggle	36	F. Copeland	36
R. L. Bedwell	37	H. Creswell	36
John Boggs	37	W. A. Davis	36
W. A. Davis	37	Bob Lynn	36
C. F. Hale	37	E. T. Strunk	36
		Jim Winters	36
		George Wylie	36

No. 6 Hole-In-One

Charley Hale 11 in.

Gene White 7 ft. 8 in.

No. 12 Hole-In-One

George Wylie 3 ft. 1 in.

Cedric Patton 8 ft. 10 in.

DIVISION II

Front Nine		Back Nine	
R. W. Napier	31	John Cobb	31
John Cobb	33	Steve Cates	32
Wendolkowski	34	John Bowelle	34
Joe Bender	35	A. J. Kessing	34
Ted Bartlett	36	C. E. Nunley	34
John Bowelle	36	R. J. Magyary	35
F. Hammerling	36	A. J. Thompson	35
A. J. Kessing	36	Wendolkowski	35
C. E. Mathis	36	Don Townsend	35
C. E. Nunley	36	Ted Bartlett	36
Sam Woodfin	36	Dave Byrd	36
		W. T. Carter	36
		Bob Orrison	36
		L. R. Williams	36
		R. W. Napier	36

No. 6 Hole-In-One

Stan Harris 2 ft. 6 in.

Steve Cates 10 ft.

No. 12 Hole-In-One

Larry Williams 14 ft. 7 in.

Frank Hammerling 22 ft.

DIVISION III

Front Nine		Back Nine	
P. K. Sherrill	30	W. S. Lenihan	30
John Goss	31	John Goss	31
B. K. White	34	G. F. Malling	32
Don Klebenow	35	P. K. Sherrill	32
M. McCarty	35	D. E. Hendrix	34
D. R. Lawrence	36	S. H. Moore	34
W. S. Lenihan	36	B. K. White	35
G. S. Malling	36	B. K. White	35
S. H. Moore	36	Don Klebenow	36
Sid Speckter	36	M. McCarty	36
		Ron Meyers	36
		H. G. Stanley	36

No. 6 Hole-In-One

Don Lawrence (tie) 9 ft. 11 in.

Seth Wheatley (tie) 9 ft. 11 in.

No. 12 Hole-In-One

Kerry Estes 19 ft. 11 in.

L. J. Davis (tie) 21 ft.

Ron Meyers (tie) 21 ft.

Lab Notes



Mrs. Richard G. Taylor

Richard Gordon Taylor, Nuclear Safety and Technology Department recently was married to Janna Ellen Brown at Charlottesville, Va. The couple will live in Oak Ridge where the bride is a special education teacher in the Oak Ridge school system.

PhD to G. McNeilly



Gregory S. McNeilly

Gregory S. McNeilly, Scientific Applications Department, Computing Technology Center, was awarded a Ph.D. degree in Nuclear Physics from Florida State University in August. He has been employed here since September, 1969. He worked as a summer employee in the Mathematics Division at Oak Ridge National Laboratory in 1963 and 1964.

McNeilly is a native of Mayfield, Ky. He received his B.S. degree from Florida State in 1965, graduating magna cum laude, and a M.S. degree from the University of Illinois in 1966.

McNeilly is married to the former Kathy Eden of Jacksonville, Fla. They live at 964 West Outer Drive in Oak Ridge. His outside interests include tennis and hiking.

K-25 BAR-B-Q

HOOTENANNY

Saturday, October 3, 1970

Clark Center Recreation Park

Serving Hours 5 - 7 p.m.

Adults \$1.50

Children \$.75

12 and under

Price includes Food & Drink

Ticket sale closes Monday, SEPT. 28



Fritts, Goodman, Hensley and Johnson Recently Appointed as Y-12 Foremen

Four additional foremen have been appointed in Y-12, Sidney E. Fritts and James D. Goodman, in Fabrication; and Arthur G. Hensley and Robert K. Johnson, in Metal Preparation.



Fritts Goodman



Hensley Johnson

Sidney E. Fritts
A native of Knoxville, Sidney E. Fritts is a new foreman in Alpha Five East. He worked at Roy's Machine Shop and Sanford Day Iron Works, Knoxville, before coming to Y-12 December 15, 1958.

A veteran of the U. S. Air Force, he served from 1950 until 1954 in service.

Mrs. Fritts is the former Helen Gibson. She is a registered nurse and works part time at Presbyterian Hospital in Knoxville. The couple has two children, Steve and Debbie who attend Powell High School.

James D. Goodman, Sr.
Born in Lenoir City, James D. Goodman, Sr. still lives there at Route 2. He is a veteran of the U. S. Navy, serving during World War II. He worked in Lenoir City prior to his service years, and from 1946 until 1952 worked with the Chrysler Corporation, New Castle, Ind. and the Antrim Tree Surgery Co. there before coming here November 18, 1955.

Mrs. Goodman is the former Johnnie Sue Wilburn. They have two children, Pamela Amos, who lives at home while her husband is in service; and James D. Jr., who recently left the Marine Corps and is attending Draughon Business College in Knoxville.

Goodman was named machining foreman in Alpha Five West.

Arthur G. Hensley
A new processing foreman in Chemical Services is Arthur G. Hensley. A native of Charleston, W. Va., Hensley lives at Route 1, Rockwood.

He came to Oak Ridge Gaseous Diffusion Plant September 21, 1953, and transferred to Y-12 in February of 1958.

He has studied at the University of Tennessee extension school.

Mrs. Hensley is the former Lorene Plemons. They have three children, Alvin, Gail and Martha.

Robert K. Johnson
Robert K. Johnson has been named a process foreman in Alpha Five Processing in the Metal Preparation Division. He was born in Maynardville, and lives at 5308 Clover Rd., Knoxville.

A veteran of the U. S. Army, he worked at Standard Knitting Mills, Knoxville, both before and after his army hitch. He worked briefly at Vendors, Inc. before coming here. His continuous service date is June 4, 1968.

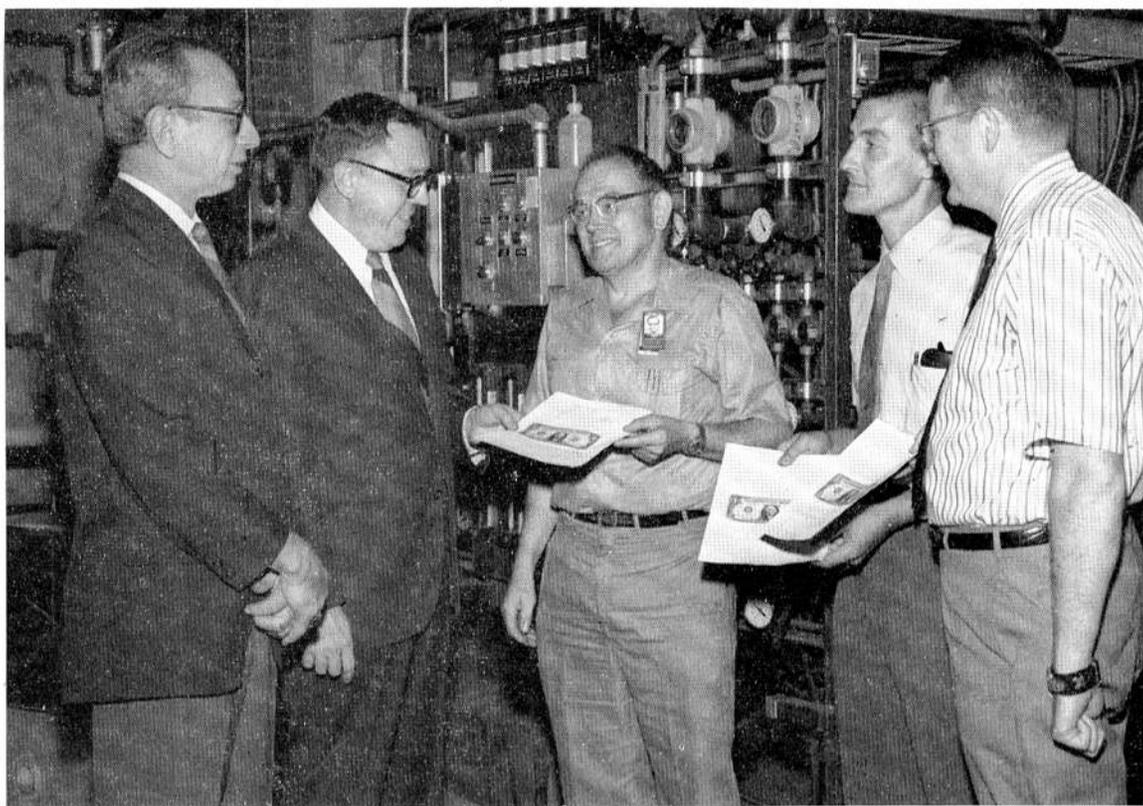
Mrs. Johnson is the former Bernice Lester. They have seven children, Teresa, Paula, Sharon and Cecilia, and sons, Anthony, Robert, Jr., and David.

FIRE CAUSE

Leading causes of fatal home fires, according to a recent study, are combustible materials too near flames, falling asleep while smoking, starting fires with flammable liquids, and defective equipment.

rected by devoting full attention to the operation of the vehicle.

Drive as if your life depended on it . . . for IT DOES!



TROIKA DEVELOPMENT—George B. Marrow and William J. Wilcox, Jr., left to right, present John M. Googin, Foraker Lambdin and Jackie L. Cook honorary \$1 letters for a joint development which has brought them a patent application assigned to the U. S. Government. The effort was for 'Methods for Increasing the Carbon Yield of Resins and Reducing the Porosity of Carbon Composite.' Marrow is superintendent of Materials Engineering Development, and Wilcox is technical director of production for the Nuclear Division.

Garage Marks the Death Of Veteran Jake Seivers

Jake H. Seivers, long-time employee in Y-12's Garage, died Tuesday, August 25, in a Knoxville hospital. He had been off several months ill.

A native of this area, he came to Y-12 for the second time March 12, 1948. Previously he had worked with the H. T. Hack-



J. H. Seivers
Seivers, a daughter Mrs. Janie Schrimsher, Ft. Pick, Mont.; a son John W. Seivers, Johnson City; Six grandchildren; a brother, John T. Seivers, Knoxville; and two sisters, Mrs. Ruth Calhoun, Knoxville, and Mrs. Elizabeth Bogart, Tulsa, Okla.

Graveside services were held Friday, August 28 at Lynnhurst Cemetery, Knoxville, with the Rev. Roy L. Howard officiating.

Automobile Accidents On Increase in Y-12 Facility

Vehicular accidents continue to be a problem in Y-12. Traffic accidents have increased 38 percent this year. A total of 26 accidents have resulted in damage to 28 government vehicles.

Some of these accidents were potentially dangerous to the driver. Half of the 26 accidents occurred because the vehicles were not started properly from a parked position; or it was parked or backed improperly. Nine of the 26 mishaps were cold weather or wet surface accidents where clearance was misjudged. In four of the accidents, the operator failed to have the vehicle under complete control.

Most or all of these accidents could have been prevented with that extra effort of care. Lack of vehicle control can often be cor-



CERTIFICATE OF ACCREDITATION—C. R. Schmitt, Chemistry Development, has been awarded a certificate of accreditation by the National Association of Corrosion Engineers for his contributions to the field of corrosion engineering.

Development's C. R. Schmitt Awarded Accreditation by Corrosion Engineers

C. R. Schmitt, research engineer in Chemistry Development, has been awarded a certificate of ac-

creditation by the National Association of Corrosion Engineers for his contributions to the field of corrosion engineering.

Schmitt's experience in this field includes 14 years at Y-12 in development of non-corrosive materials and 10 years at the Oak Ridge Gaseous Diffusion Plant in water corrosion and treatment problems. He holds several patents and has authored numerous papers and technical articles on the subject of non-corrosive materials research.

Courtesy and kindness are the elements of civilization.

SAFETY SCOREBOARD

The Y-12 Plant Has Operated
252 Days Or
8,017,000 Man-Hours
(Unofficial Estimate)
Through September 6
Without A Disabling Injury
SAFETY AT HOME,
AT WORK, AT PLAY

Rites Held in Knoxville For Raymond R. Galford

Funeral services were held Tuesday, August 25, at the Gentry Funeral Chapel, for Raymond R. Galford, H-2 and F-Area Shops. He died Sunday, August 22. The services were conducted by Dr. Charles Ausmus, and interment followed in the Greenwood Cemetery, Knoxville.

Mr. Galford, came here October 16, 1950, after working as a machinist at Fulton Synchron and Deadrick Machinery Co., Knoxville. He was an ardent bowler, and a member of the Eagles.

Survivors include his wife Mrs. Pearl Faye Harwell Galford, 2000 Fair Drive, Knoxville; sons Larry and Gene Galford; brother, June W. Galford, Dunmore, W. Va.; sisters, Mrs. Mable Jones, Knoxville; and Mrs. Nola Taylor, Dunsmore.



R. Galford

Clinton Optimists Club Honors Polie E. Arnold

Polie E. Arnold, Material Procurement Department, was honored recently by the Clinton Optimist Club for having 17 years of perfect attendance. James L. Disney, Radiation Safety, an ex-president of the Optimists, served as master - of - ceremonies for the "This is Your Life" type program.

Arnold was given a pair of house shoes to symbolize the rest he was entitled to now, and later a sport coat with the Optimist emblem on it. This symbolized that the rest period had ended.

Several out-of-town guests attended the meeting, which helped to surprise Mr. Clinton Optimist, Pole E. Arnold.



TOURING EUROPE—Rebecca Jansch and Greg Redmon will return home today after a whirlwind tour of European musical capitols. They toured Austria, Luxembourg, Germany, Austria and Italy on a tour sponsored by the University of Tennessee High School Shoral Camp. Rebecca is the daughter of Sallie Jansch, Legal Department; Greg the son of Boyd Redmon, Beta Four Heavy Machine Shop.

Two Y-12 Off-Springs Tour Europe Visiting Many Musical Shrines, Sites

Two Wartburg students, both of them children of Y-12ers, are winding up a 'chance-of-a-lifetime' tour of Europe this week. Rebecca Jansch, daughter of Sallie, in the Legal Department; and Greg Redmond, son of Boyd Redmon, Beta Four Heavy Machine Shop, arrive home today after a musical tour of Europe.

The three-week tour included musical sites familiar to everyone . . . Salzburg, Vienna, Rome, etc. While in Austria the group attended festival performances. In Salzburg they visited St. Peter's Franciscan Church, Fortress Hohensalzburg, Mirabell Palace, and Mozart's birthplace. They visited the location of the filming of "Sound of Music," and saw the Passion Plant at Oberammergau. In St. Florian, the group visited the Baroque monastery where they heard an organ concert on the Bruckner organ. In Vienna, they attended a Mendelssohn concert.

In Vienna's famed State Opera House they saw a performance of Mozart's "Don Giovanni."

From Austria, they traveled by train through the Alps to Florence and Rome.

The group was expected to return to Knoxville today.

Greg is a senior at Central High School, Wartburg; and Sallie graduated this summer from Oak

Hill Academy in Virginia and will enter The University of Tennessee this fall.

The tour was called "An Introduction to Europe" and was sponsored by the University of Tennessee High School Choral Camp through the Institute of European Studies in Vienna. Professor Ambrose Holford and Lorene Michalopoulos, both of the U.T. Music Department were the official guides.

Classic Bowlers Initiate 16-Team League at Ark

The Classic Bowling League tossed its first balls last week, as the Rippers and Swingsters took big wins, the Rippers from the Rojo's, and the Swingsters by their old enemies, the Markers.

Frank Tiller, Tigers, took opening honors: singles of 241 scratch, 262 handicap. Sewell Brown, Has Beens, posted a 574 scratch series, while Frank Winstead, Rebels, rolled a 639 handicap total.

The Tigers took team highs, singles of 895 scratch, 1043 handicap. Series honors went to the Swingsters with 2596 scratch totals, and the Rebels with 2889 handicap highs.

Initial standings follow

Team	W	L
Rippers	4	0
Swingsters	4	0
Eagles	3	1
Screwballs	3	1
Eightballs	3	1
Rebels	3	1
Playboys	3	1
Bumpers	2	2
Tigers	2	2
Splinters	1	3
Smelters	1	3
Has Beens	1	3
Cubs	1	3
All Stars	1	3
Markers	0	4
Rojo's	0	4

Y-12's L. S. Hall Relected To Roane School Board

The August 6th election saw Y-12er Luther S. Hall relected to a six-year term on the Roane County School Board. Hall, in Tool Grinding, represents the second district, which encompasses Oliver Springs and the surrounding area.

Hall is a director for the Tennessee School Board Association, representing the fourth Congressional district. He is a member of the board of the Tennessee Appalachian Education and Cooperation Association, and is on Roane County's Unification Committee.



Early September brings more Y-12ers to the forefront, observing important 'birthdays' with Union Carbide Corporation. Congratulations.

25 YEARS

Tilden H. Tabor, Mechanical Inspection, September 5.

Joseph J. Kurtz, Long Range Planning, September 6.

Zola M. White, Beta Two Forming, September 7.

Dennis O. DeHart, Buildings, Grounds and Maintenance Shops, September 9.

Evelyn T. Wilson, Medical Department, September 9.

20 YEARS

Houston L. Pace, Buildings, Grounds and Maintenance Shops, September 1.

Malcolm R. McKenzie, H-1 Foundry, September 5.

Villard P. Maddron, Research Services, September 6.

Omer E. Hatmaker, Alpha Five Processing, September 8.

Paul D. Quinley, Chemical Services, September 8.

Otha L. Williams, Special Services, September 11.

Hillyard G. Dyer, Dimensional Inspection, September 11.

Ules M. Oxford, Graphite Shop, September 11.

Arville E. May, Special Services, September 12.

Cletus A. Rinderer, General Plant Tooling Coordination, September 14.

David A. Jennings, Maintenance Division, September 18.

Charles E. Walker, General Machine Shop, September 18.

William P. Moore, Buildings, Grounds and Maintenance Shops, September 18.

Fred B. Matthews, Research Services, September 19.

Chester L. Johnson, Buildings, Grounds and Maintenance Shops, September 19.

Immer J. Maples, Utilities Administration, September 19.

15 YEARS

James P. Miller, Machine Maintenance, September 2.

Emmert A. Jolley, Dimensional Inspection, September 5.

Johnnie R. Parker, Area Five Maintenance, September 7.

Robert C. Andrews, Beta Two Shop, September 9.

James E. McNabb, H-1 Foundry, September 19.

Marie W. Hensley, Engineering Division, September 19.

10 YEARS

Richard C. Green, Dimensional Inspection, September 6.

Harold A. Fell, Fabrication Division Engineering, September 8.

Marie D. Hickson, Process Analysis, September 8.

John R. McKay, Beta Four Forming, September 14.

Grover C. Bell, Tool Design, September 19.

Mee - Wright Assume Lead At Southwest Point Course

The Mee-Wright team pulled into a one-point lead in the Southwest Point golf league last week after a sweeping win over Plemons-Roberts.

Dan Morgan capped top honors with a 37 score. R. Plemons took medal honors the week before with a low 34.

League standings follow:

Team	W	L
Mee-Wright	26	10
Henderson-Stanton	25	11
Plemons-Roberts	20	16
Bolt-Pelfrey	20	16
Stark-Wilkey	18	18
Briscoe-Williams	15	21
Jones-Morgan	14	22
Boyd-Bush	6	30



WINNING CARDINALS—Sporting a 19 won—two loss record are the Cardinals, 1970 Little League Champions from Maryville. The team is managed by C. R. Lowe, Civil and Architectural Engineering. Lowe has engineered the Maryville lads for four years, winning 64 of his last 84 ball games. The Cardinals had 10 shutouts, one perfect game, scoring 170 runs to their opponents' 31. In the first row are, from left, Tim Phillips, Rickey Maples, Kent Kyle, Doug Taylor and Rickey Lowe, C. R.'s son. In the second row are Winston Blazer, Steve Morgan, Mike Phillips, Steve Kyle and David Driskill. In the back row are Jeffry Thompson, Gene Goodman, Greg Long, David Green, Dain Baker and Jack Stinnett. In the back are Coach Jim Long and Manager Lowe.

Dorr's 5-under-Par Climaxes Finale As Y-12ers Put Putters Under Wraps

Ace Carl Dorr broke his own low record in carding a 67 at Melton Hill Saturday, August 22. His five-under-par score led the field of golfers in Y-12's final tournament of the summer. He was followed by Bob Carmack with a two-under 70.

Dorr took scratch honors, naturally, in the first flight. Bill Mee came in second with a 73; Gary Williams, 75; and Everett Rogers, 77.

Carmack's 67 handicap score was low. He was followed by J. D. Brown, 69; J. D. Robertson, 70; and F. K. Clabough, 71.

W. B. Goss fired 14 pars; Charles Baxter, 13.

SECOND FLIGHT

Harold Bell turned in a 78 scratch score to sweep honors in the second division. George Peterson tallied an 80; J. H. Wiley, 82; and Paul Johnson and Jerry Babons tied for fourth place with 85.

Handicap laurels were gleaned by A. J. Naleppa, 70; Hubert Tripp, 71; R. A. Gallman and Avis Collins, 73.

Fred Jones Paper Slated In Birmingham, England

Fred W. Jones, head of the fabrication Systems Development Department, will present a paper next week in Birmingham, England. The International Machine Tool Design and Research Conference will be held September 14, 18.

The title of Jones' paper is "Performance Evaluation

of Precision Numerically Controlled Turning Equipment." It describes techniques used in evaluating the performance of machine tools controlled by programmed tapes. The evaluation was part of a continuing program of modernizing manufacturing equipment here in Y-12.



Fred Jones

Brice Burrus and Ed Crowder parred nine holes, to take honors in that department.

THIRD FLIGHT

Bob Bowers scored an even 80 to cap the low scorecard in the third division. A. M. Wilkey came in with an 84; R. J. Mustin and Don Rogers tied with an 86.

G. C. Lard and Ray Ellis tied for handicap honors, each with 66. They were followed by Tom Wheeler and Sandy Quinn, who fired 71 each.

Jim Milligan took nine pars; Jack Smiddy, seven.

FOURTH FLIGHT

John Harris posted a 90 score for low in the last flight of golfers.

Max Glandon's 93 came in second. He was followed by Benny Hendrickson and Tudor Boyd, each with 95.

Handicap lows went to M. H. McRae, 71; D. H. Johnson, 73; Frede Guttery and J. W. Rolston, each with 74.

R. L. Braden took six pars; D. L. Glover, five.

Thus Y-12 rung the curtain down on the five successful ventures on greens in the area. The popularity of the game is enhanced each year among plant sportsmen.

Loyd Wyatt Still Leads Table Tennis Competition

Loyd Wyatt continues his lead in the Summer Table Tennis group after a three-game win over Jerry Keyes and Jerry Goldstein.

Roy Huddleston posted three from Al King, and two from Joe Rich.

League standings follow:

Player	W	L
Loyd Wyatt, Y-12	12	0
Roy Huddleston, Y-12	11	1
Gordon Brewer, Y-12	6	6
Herb Mook, ORNL	6	6
Jerry Goldstein, ORNL	5	7
Joe Rich, ORNL	4	8
Al King, Y-12	4	8
Jerry Keyes, Y-12	0	12

Great people are too busy to hate.



Ride wanted from East Faunce Lane, Oak Ridge, to East Portal, straight day. R. D. Yarborough, plant phone 3-5281, home phone Oak Ridge 483-0467.

Will join car pool from Elm Grove vicinity, Oak Ridge, to North or Central Portal, straight day. W. W. Raper, plant phone 3-5986, home phone Oak Ridge 483-8046.

Ride wanted from Sherwood Estates, Claxton, to Bear Creek Portal, straight day. Clayton Ogier, plant phone 3-5116, home phone Claxton 945-2042.

Car pool members wanted from West Haven Jiffy, to East and North Portals, straight day. Newman Wise, plant phone 3-7486, home phone Knoxville 689-4215.

Diet and Colon Disease

By T. A. LINCOLN, M.D.

In these days of concern about our environment, one should remember that diet is probably the most important environmental influence that affects human health. Although an inherited vulnerability may be important, most disease is the result of environment, not genetics. Dietary changes in Europe and the U.S.A. over the past 75 years have been overwhelmingly beneficial, but they have also had many unfavorable effects. The adverse effect on the health of the colon is now being appreciated.

In the past five years, Dr. E. L. Wynder and his associates at the Sloan-Kettering Institute for Cancer Research in New York, have studied the epidemiology of cancer of the colon in the United States and Japan. Dr. A. G. Oettle, of the South African Institute for Medical Research in Johannesburg, has studied the influence of diet on cancer of the colon in Transvaal whites and Bantu blacks.



Dr. Lincoln

More recently, Dr. Denis Burkitt, of the British Medical Research Council who already has a disease named after him, the Burkitt lymphoma, has started to look at the challenging problem of colon cancer. By studying the geographical distribution of Burkitt lymphoma, he showed this cancer was caused by some agent in the environment. Later it was found to

be a virus. Obviously he hopes to uncover environmental agents which influence colon diseases, especially cancer.

So far, only a few pieces of this immensely complicated puzzle have been put together.

Appendicitis is a common surgical emergency in the U.S.A. Diverticulosis, the presence of multiple out-pouchings in the colon, and polyps can be found in almost 20 percent of people over the age of 40. Cancer of the large bowel is responsible for over 40,000 deaths each year, or about 15 percent of all deaths from cancer. Yet many of these diseases are almost totally unknown in rural Africa.

Change of Diet

They are, however, approximately as common in American blacks as they are in whites. When African blacks move to the cities and eat a diet with more refined carbohydrates and fat, they begin to have more cases of appendicitis fairly soon. Much later, they have more diverticulosis and cancer of the colon. The black immigrants to the big African cities are participating in a rapid diet change similar to what slowly happened to everyone in the U.S.A. about 50 years ago.

The differences in disease incidence cannot be accounted for just by better medical care, and therefore improved diagnostic capability, in the city. In 20 years of surgical practice in Uganda, Dr. Burkitt never once recognized diverticular disease in an African.

Affluence Brings Problems

Cancer of the colon is less common in Japan than in the U.S.A., accounting for only 5 percent of cancer deaths. The incidence of cancer of the rectum is about the same. Japanese immigrants to Hawaii and other parts of the U.S.A., and especially their children and grandchildren, have colon cancer rates the same as other white Americans.

Colon disease is becoming more common in Japanese who have become affluent in the postwar boom. They tend to eat much more eggs, milk, meat, fat and fresh fruit.

The diet of the rural African is high in vegetables and cereals and relatively low in animal meat and fat. This diet has a profound influence on bowel habits. The rural African eats a bulky high residue and unrefined diet and therefore has large soft stools usually two to three times a day. Constipation is rare. The digesta pass through the intestinal tract rapidly. The total transit time is from 15 to 25 hours, while in Western countries it may be three or more days.

High Fat Diet

The Western diet produces a small, hard stool with a slow transit time. Because of this, the intraluminal pressure is high, which may account for the diverticula which form. They look much like "blowouts."

The American diet has a profound influence on the bacte-



REMEMBER TONY? — Eight-year-old Tony is a student-patient at Daniel Arthur Rehabilitation Center. There are several slides of him in both the 1969 and 1970 UF slide shows.

rial population of the colon. A high fat and refined carbohydrate diet produces a different bacterial population than a low fat and unrefined carbohydrate diet. It may be that the bacterial population, plus some carcinogenic agent, may be the cause of colon cancer. In the small intestine, where the bacterial population is low, cancer is universally rare. In the colon, the bacteria may convert a procarcinogen into an active carcinogen.

Dr. Oettle wonders about sodium nitrite, which is added to meat to keep its color. The U. S. Dept. of Agriculture allows 200 ppm and it is used in sausages, minces, corned beef and ham, all foods eaten by the more affluent. Nitrosamines, which can be produced from nitrites in the colon, are carcinogens.

In this great land of ours, it is obvious that we pay a sizeable health price for our rich diet. We have more coronary heart disease, at least partly because of our high fat diet.

UF Drive in October

Tony Personifies Top Purposes Of Tennessee's United Fund

EDITOR'S NOTE — The United Way helps us all. Using our dollars, collected primarily through a once-a-year fund drive, hundreds of unpaid volunteers provide scores of vital community services. This is the first in a series of articles about UF services in East Tennessee. The UF drive will be held during October.

By JOHN HAFLEY

Remember Tony?

Last year, slides were taken of a handsome, smiling young boy learning to walk through physical therapy at Daniel Arthur Rehabilitation Center. The scenes, used in last year's United Fund slide show, made a lasting impression on many Carbide employees.

Somehow Tony, a victim of cerebral palsy, personified all three major purposes of the United Way — helping the handicapped, helping our young people, and serving the community.

Doing Better Now

Tony, now eight years old, is doing a little better this year, thanks in part to our UF dollars, in part to the excellent staff and facilities at Daniel Arthur, and in large measure to a small boy's courage.

And each year he gets a little closer to his goal, as recorded last

American Society for Metals Meeting Set For Wednesday

The Oak Ridge Chapter of the American Society for Metals will meet next Wednesday, September 16. W. A. Anderson, head of the Physical Metallurgy Division of Aluminum Company of America's Research Laboratories, New Kensington, Pa., will speak on "Alloy Effects in Aluminum."

The meeting will be held at the Elk's Club in Oak Ridge. The 8 p.m. meeting will be preceded by a buffet dinner. Reservations may be made through A. C. Schaffhauser, extension 3-1739.

year in a story by AEC employee Ruth Carey, a long-time UF volunteer. Tony has one big dream—to be able to "play" like the other youngsters.

The path will be painfully slow. Tony has already had two operations to straighten his legs, the last one last summer. Braces are refitted to him as he grows. And long hours of training and therapy are ahead.

Others Are Like Tony

There are many other youngsters like Tony who are helped by the United Way in East Tennessee. Their problem may be a physical handicap, mental retardation, or some emotional problem. But the United Way provides a measure of assistance — in some cases, a vital measure.

For example, the United Way in Anderson County supports many services for the handicapped:

The Anderson County Arthritis Foundation holds a free clinic for indigent Anderson County residents who suffer from arthritis.

Daniel Arthur Rehabilitation Center helps indigent children and adults requiring diagnostic services and treatment to overcome handicapped conditions and illnesses that strike all age levels.

The Anderson County Association for Retarded Children operates a nursery during the school year and a summer playground for retarded children.

And Emory Valley School and Sheltered Workshop operate facilities which give mentally retarded adults an opportunity to perform productive work.

Your dollars make it possible for the United Way to work. They have helped Tony — and others like Tony — to take one more step each year.

Next October, remember what your dollars mean, and "remember Tony."

NEXT ISSUE: Community services provided by the United Way.



LOLLIPOP IS TOOL—Mrs. Meribah O'Brien, Chief Speech Therapist at Daniel Arthur Rehabilitation Center, works with a child with a severe lingual involvement. The lollipop is being used to encourage correct tongue placement. DARC is one of the public service agencies supported by your United Fund.

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**UNITED STATES
EMPLOYMENT SERVICE
WAR MANPOWER COMMISSION**

APPLY TODAY!

EARLY DAY RELIC—Jim Fowler, Computer Services, Computing Technology Center, ORGDP, has a sub-contract with a partner to dismantle a section of the old Atomic Energy Commission 'Castle on the Hill.' This old poster was found in a section of the wall recently. The blacked-out section at the top of the poster pleads: 'Men without Families, Come!'

Y-12 Snakes Take Slow-Pitch Crown

Y-12's big Snakes captured the Slow Pitch tournament held recently between Y-12 and ORGDP teams.

The Snakes began their slow march to the crown with a victory over the All Stars, 4 to 3.

They then lost to the K-25 Gashouse Gang, in an upset 12 to 11, dropping into the 'loser's' bracket.

They were forced to defeat the All Stars again 16 to 6 to prove their nettle in the new bracket. They then downed the Y-12 Eagles 21 to 14 to meet their old opponents, the K-25 Colts.

The real climax of the tournament came August 21 when the Colts and Snakes went eight innings. The Snakes crawled by 8 to 7 in a close one!

The playoff consisted of two games, as the Gashouse Gang was in the winner's bracket, and had to be defeated twice. The Snakes won game one 14 to 7, then turned and won the second one 10 to 4.

The Snakes became champions, with the Gashouse Gang acting as runners-up.

The curtain fell with the K-25 Colts the league champions, and the Y-12 Snakes the tournament victors.

PLASTIC BAGS—DANGER

Despite thousands of warnings, plastic bags still are a suffocation menace to children under one year. They should be kept out of cribs, playpens, carriages—and out of children's reach, of course. Before disposing of a plastic bag, tear it up or tie it in a knot.

Reimann Wins Last Hi Power Rifle Set

George Reimann, ORNL, won the final match of the All Carbide High Power Rifle League with a 476. Arvin Quist, also of ORNL, followed with a 467; and Carl Brewster, Y-12, was third with a 465; all out of a possible 500.

Other scores were:

Firer	Score
Bill Galyon, Y-12	453
Jack Mrochek, ORNL	453
Bill Kelley, Jr., Y-12	442
Hugo Bertini, ORNL	439
Ed Scott, Y-12	437
Bert Searles, Y-12	434
Dennis Chilcots, ORNL	426
Vic Fowler, ORNL	422
Bill Denton, Y-12	417
Tom Lemons, ORGDP	392
Joe Crowell, ORGDP	391
Troy Burklow, Y-12	364

B'nai B'rith Concert Is Set Sunday, September 20

The annual benefit concert by the Summer String Orchestra in behalf of the Oak Ridge Scholarship Fund of B'nai B'rith will be held Sunday, September 20, at the Oak Ridge Playhouse.

Plans for this year's program have been announced by Robert M. Pearlstein, general chairman of the scholarship fund. He said this year's concert will include selections by Bach, Greig and Mozart. Soloists will include James Marable, Barbara Marable and Irving Spiewak.

The Oak Ridge Scholarship Fund of B'nai B'rith provides financial aid for needy, capable local high school seniors at the onset of their college careers.

Last year's concert resulted in the awarding of four scholarships to students—Kathryn Frederick, Rehnee Payne, Shirley Rogers and Hosie Simmons, Jr.

'Stake in Atom' Opens 10th Year

"Your Stake in the Atom," the Atomic Energy Commission's traveling educational program designed principally for presentation at state and local fairs, recently began its tenth season on the road at the Central Wyoming Fair and Rodeo in Casper.

The four-day Casper Fair was the first of eight "Your Stake in the Atom" appearances at fairs in five western states.

The program is operated for the AEC by Oak Ridge Associated Universities. It consists of 100 linear feet of colorful and animated display panels explaining the nation's nuclear energy research and development programs.

House in a geodesic "Exhibidome," 50 feet in diameter and 25 feet high, the exhibit is manned by a specially trained science teacher-demonstrator, whose "live" presentations to fair audiences include a demonstration of remote-controlled "mechanical hands" used by researchers and workers in nuclear laboratories.

There is no admission charge to "Your Stake in the Atom," which is one of the many free educational programs operated for the AEC by ORAU. The largest is the permanent American Museum of Atomic Energy here, the nation's first museum devoted exclusively to explaining the history and applications of atomic energy in easy-to-understand terms.

New Contracts

Contracts totaling more than \$1.2 million have been awarded for the provision of material and supplies at the three facilities here.

The Scott Machine Tool Co., Atlanta, Ga., has received a \$411,370 contract for provision of a five-axis Milwaukee-Matic machine. The equipment will be used in Y-12.

A \$276,000 contract has been awarded the Aluminum Company of America for provision of various aluminum products at the Oak Ridge Gaseous Diffusion Plant, Oak Ridge National Laboratory and Y-12. The contract is for three years.

Datum, Inc., Anaheim, Calif., received a \$183,884 contract for provision of a computer controlled data acquisition system in Y-12.

A three-year contract for furnishing various tubing and pipe at all three facilities was awarded Leinart's, Inc., Knoxville, Tenn. The contract was for \$175,000.

Universal Drafting Machine Corporation, Bedford Heights, Ohio, will furnish Y-12 with a stored program drafting system at a cost of \$111,875.

The McJunkin Corporation, Charleston, W. Va., was awarded a three-year contract totaling \$105,000 for provision of carbon steel pipe at the three Oak Ridge facilities.

Welding Society Meeting In Knoxville on Tuesday

The Northeast Tennessee Section of the American Welding Society will meet next Tuesday, September 15. The dinner meeting will begin with a social hour at 6:30 p.m. at the Village Green Clubhouse, off Kingston Pike, Knoxville.

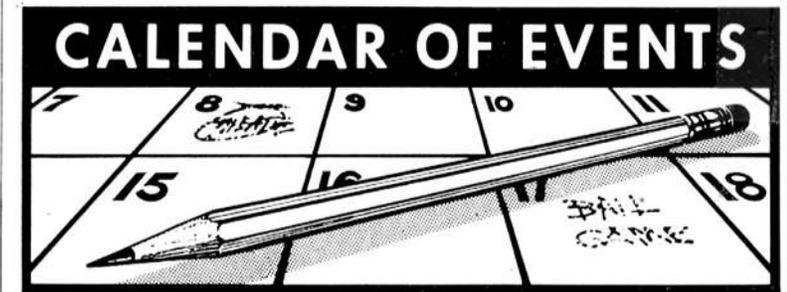
A panel discussion will discuss some of the latest welding technology. The panel consists of Paul Turner, Duke Frizzell, Clarence Wodtke, and Gerry Slaughter.



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TECHNICAL September 10

American Institute of Chemical Engineers Symposium on Mathematical Programming: "Nonlinear Programming," Kenneth E. Cross; "Lagrangian Multipliers," James E. Park. ORAU Training Building Conference Room, 7:15 p.m.

Electronuclear Division Seminar: "X-rays of the Transuranic Elements," P. F. Dittner. Conference Room, Building 6000, ORNL, 10 a.m.

General Engineering Division Seminar: "ORMAK, Past, Present, and Future," Michael Roberts. East Auditorium, Building 4500N, 1:30 p.m.

ORNL Environmental Study Lunch Hour Film Festival: "A Day at the Dump," "Wealth of the Wasteland," and "Wild Rivers." Isotopes Auditorium, Building 3047, 12 noon.

September 11

Solid State Division Seminar: "Influence of Stacking Fault Energy on the Plastic Behavior of FCC Single Crystals," H. Mecking, University of Aachen, Aachen, Germany. Conference Room, Building 3025, 10 a.m.

September 15

ORAU Medical Division Staff Seminar: "Protein Synthesis and Cellular Organelles," William E.

Barnett. ORAU Main Conference Room, 4 p.m.

September 16

Metals and Ceramics — Solid State Physics Seminar: "Effects of Surfaces and Anisotropy on Prismatic Dislocation Loops," David J. Bacon, Department of Metallurgy and Materials Science, University of Liverpool, England. Room S-126, Building 4500S, 10:30 a.m.

September 15-18

Third Annual Radiac Working Group Meeting, Oak Ridge National Laboratory. Arrangements: ORNL Personnel Services.

September 21-22

Thermonuclear Division Annual Information Meeting, Oak Ridge National Laboratory.

K-25 Paper

N. B. Schultz, Head of Safety, Health Physics, and Industrial Hygiene, will present a paper at the technical meeting of the Blue Grass (Kentucky) Chapter of the Health Physics Society in Paducah, Ky., on September 12. The title of Schultz' talk will be, "Radiation Standards and Practices at the Oak Ridge Gaseous Diffusion Plant."



TSPE STATE OFFICIALS—Lloyd W. Jones, Engineering Division, center, heads the state Tennessee Society of Professional Engineers. He took the gavel from B. B. Winsett, president of Winsett & Simonds, Inc., Memphis, at the June meeting of the TSPE. Rolf Rosenvinge, right, another Y-12er, serves as the society's treasurer.