

# Energy Systems at Portsmouth

A Monthly Newspaper for Portsmouth Gaseous Diffusion Plant Employees of Martin Marietta Energy Systems, Inc.

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Number 6

Plant crews have completed the repackaging of the last of approximately 200,000 fiber drums of lithium hydroxide into steel drums for safe, permanent storage. The \$13 million project required about two years. The task was completed within budget, on schedule, and with an excellent safety record. The lithium was left over from production processes at Department of Energy facilities in Oak Ridge from 1955 to 1963.



## Lithium project comes to a close

Martin Marietta Energy Systems has completed repackaging the last of some 187,000 cardboard drums of lithium hydroxide powder into steel drums for safe, permanent storage.

The lithium was left over from a production process conducted at the U. S. Department of Energy's (DOE) Oak Ridge facilities during the 1955-1963 period. When the process was terminated in 1963, the residual lithium hydroxide was moved in the original cardboard shipping drums to the Portsmouth Gaseous Diffusion Plant for storage until a determination could be made on final disposition of the material.

In recent years, DOE and Energy Systems officials have become increasingly concerned that possible deterioration of the cardboard containers holding the lithium could result in the release of some of the material to the environment. Lithium hydroxide is caustic and could be harmful to aquatic life in the event of a release.

The completion of this project, at a total cost of about \$13 million, will permit long-term storage of the marketable chemical, valued in excess of \$50 million. The new drums containing the lithium hydroxide are stored in existing warehouses at the Portsmouth site.

The task took two and one-half years and was completed without a single lost-time accident.

## Program geared to resolve employee complaints

A Salaried Employee Complaint Handling Program has been developed for use at the Portsmouth plant. The program provides salaried employees with a systematic and fair review of work-related concerns or complaints.

The objective of the program is to provide a procedure for salaried employees to express concerns and complaints and have them impartially reviewed by the Site Complaint Counselor, Joyce Hopper. The program is used after the employee and supervision have attempted, but have been unsuccessful, in resolving the complaint informally.

If, after being reviewed by the Site Counselor, the complaint is still not resolved to the employee's satisfaction, the employee may request an appeal to the Site Review Board. The board includes 19 employees (eight non-exempt, eight exempt and three division level managers) selected to serve on a periodic basis.

The board, appointed by the Personnel Director, will include one division-level manager as chairperson (rotating), two exempt employees (rotating), two non-exempt employees (rotating); and Site Counselor (standing).

The recommendation of the Site Review Board will be determined by a simple majority of voting members. The Site Counselor cannot vote on cases appealed to the Review Board.

The intent of the program is to promptly investigate all relevant information, consider all avenues for resolving the complaint, and provide feedback to the employee in a timely manner to improve employee relations.

## Purchasing gets minority award

The "1988 Corporate Business of the Year" is Martin Marietta Energy Systems at the Portsmouth Gaseous Diffusion Plant, according to The Columbus Regional Minority Supplier Development Council (CRMSDC).

Each year the CRMSDC honors one of its members for exemplary service to minority-owned businesses. The selection of the member to be honored is determined after polling the minority business community. After tabulating the results, the executive committee determines which company should be honored.

The CRMSDC, comprised of 98 major corporations, serves as a link between the corporate purchasing community and the minority business community. In this capacity, the CRMSDC develops programs to maximize the goods and services contracted to minority businesses from corporate members. In 1987, CRMSDC members purchased some \$102 million of goods and services from minority businesses.



The Salaried Employee Complaint Handling program — developed to provide salaried employees with means for review of concerns or complaints — has a Site Review Board to help resolve complaints upon request of appeal from an employee. Board members are (front row) Dan Charles, Glenn Russell, Mike Hawk, Wray Jordan, (back row) Anita Dever, Jerri Nelson, Barbara Webb, Joyce Hopper, Bill Lemmon, Judy Turner, Dian Spriggs, Sue Williams, Betty Bihl and Dan Tackett.

## Standard equipment on emergency vehicles

# Special dry ice containers developed by Maintenance

Two employees in the Cascade Mechanical Maintenance Department worked together to design devices that have proved beneficial to emergency planning efforts at the Portsmouth Gaseous Diffusion Plant.

In late 1987 Jim Arthur, Foreman, Maintenance (D-715), and a veteran of the process area for more than 34 years, was asked to help resolve emergency response problems encountered when a cylinder valve leak occurred.

Arthur enlisted the aid of Jim Hull, Welder 1/C (D-715), to help design pans which would serve as a reservoir for dry ice around the valves for cylinders.

Dry ice is used to cool the cylinder, solidify the product, and stop a leak. The pans allow dry ice to be quickly and securely contained around the valve.

Arthur and Hull used cardboard boxes in the initial design of the pans and then transferred patterns to sheet metal. The finalized products were tested to ensure proper fit and weight limitations.

Two slots on the freeze pan designed for the 10-ton cylinder slip over the cylinder's lip and two locking clamps secure the pan to the cylinder. A 14-ton cylinder freeze pan is identified by a solid bar across the top of the device. The bar slips over the curved valve protector lip to form the storage space needed to contain the dry ice.

Prior to the fabrication of the freeze pans, dry ice was placed in feed sacks by responding emergency forces and hung around the cylinder valves.

Since September, the plant Fire Department has equipped emergency response units with the pans.

Mandatory training on their use is conducted for all response personnel.

## Spetnagel now lab supervisor

Wayne J. Spetnagel has been promoted to Supervisor, Instrumentation Technology Department (D-551). He reports to Charles F. Harley, Superintendent, Instrumentation and Computer Technical Services.

Spetnagel came to Portsmouth in 1978 as a Senior Chemist. He was named Section Head, Process Engineering, in 1980.

Spetnagel served as Supervisor, Life Cycle Analysis, in the Gas Centrifuge Enrichment Plant's Technical Services Division, beginning in 1983.

He was transferred to the GDP Technical Services Division as Section Head, Scientific, in July 1985 following cancellation of the GCEP project.

Spetnagel was graduated from The Ohio State University with a bachelor of science degree in chemistry in 1969. From New Mexico State University, he received master's and doctorate degrees in chemistry in 1971 and 1973 respectively. Spetnagel also has completed postdoctoral work at Northwestern University.

He and his wife, Patricia, have two children and live near Chillicothe.



Jim Arthur and Jim Hull look over the device they designed and fabricated to serve as a reservoir for dry ice around valves of 10-ton and 14-ton product cylinders. The pans allow dry ice to be quickly and securely contained around the valve, cooling the valve and valve area of the cylinder, solidifying the uranium hexafluoride and stopping a leak.

## Williams named to personnel post

Sharon A. Williams has been promoted to Supervisor, Personnel & EEO (D-020). She reports to B. W. McLaughlin, Director, Personnel.

Williams came to work at Portsmouth in July 1973 as a Clerk-Typist. She became Group Leader, Personnel Records, in October 1975; Industrial Relations Staff in April 1977; Industrial Relations Staff, Sr., in July 1980; and Labor Relations Specialist in June 1983.

Williams was graduated from Shawnee State University in 1981 with an associate degree in social sciences and from Ohio University in 1982 with a bachelor of business administration degree, specializing in management.

She is a member of the Waverly chapter, Business and Professional Women, and active in Order of Eastern Star, DeMolay Mothers' Club and the advisory council for Order of Rainbow for Girls.



Williams



Spetnagel

## Appearance program changes hands

As is obvious to the eye, the Plant Appearance Program is looking good.

The marked improvement in plantsite appearance during the past year is attributable to the program which began under the leadership of Personnel Director Wayne McLaughlin and the late Jim Harshman, Finance Division manager, and with support of the chairpersons in each of four plant zones.

Even more important than appearance, however, is the attention that has been given to, and corrective action taken, in the areas of plant safety, fire protection, industrial hygiene and health physics. The identification and removal/correction of potentially hazardous conditions during the quarterly plantsite inspections have made PORTS a safer place to work.

In almost every instance, the ratings in each of the four inspection categories (i.e., General Safety, IHHP, Fire Protection and Appearance/Cleanliness) for the four plant zones increased from Marginal/Satisfactory to Satisfactory/Excellent during the first year of the program. The obvious goal for the second year will be to maintain or raise ratings in all categories to Excellent in each of the four zones.

Responsibility for administering the Plant Appearance Program during the next year has transferred from Wayne

McLaughlin to John Shoemaker, Director, Site Operations.

For the most recent quarter, the "Most Improved" Zone was Zone A; chairpersons are Jack Crawford and Bill Kouns. The "ACE Number 1" Award also went to Zone A.

## Obituaries

Helen M. Bauer, Sciotoville, May 25. Wife of Carl Bauer (D-823).

Ralph Miley, 76, Nashville, Ohio, Sept. 4. Father-in-law of B. D. Billings (D-612).

Clyde L. French, 78, Waverly, Oct. 2. French was Supervisor, Safety, at the time of his retirement at the end of September 1973.

## New Arrivals

Daughter, Natalie Renee, July 20, to David A. (D-814) and Laura R. Fosson.

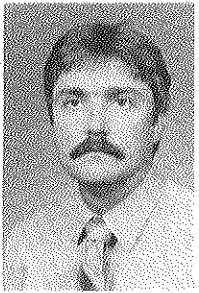
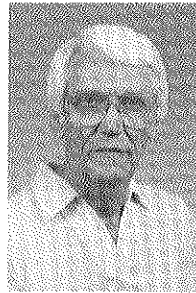
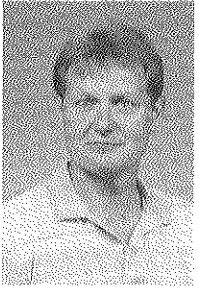
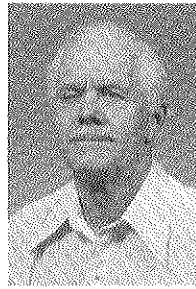
Sons, James Thomas and Jared Lee, July 25, to Gerald L. (D-921) and Barbara Bailey.

Son, Nicholas Ryan, Sept. 14, to Gary R. (D-303) and Julie Ann Workman.

Son, Garrett Stephen, Aug. 3, to David M. (D-911) and Dorothy K. (D-321) Davis.

Son, Cameron Dean, Sept. 16, to James D. (D-829) and Melody Hoover.



**Fuhr****Fite****Grow****Rogers****Crabtree****Poetker****Allen****Dever****Pollard****Wright**

## General Promotions

Bobby D. Fuhr has been promoted to Section Head, Laboratory (D-511). He reports to Roger D. Jackson, Supervisor, Analytical Services.

Candace R. Fite has been promoted to Foreman, Maintenance (D-712). She reports to Robert C. Brown, General Foreman, Maintenance.

Jackie D. Grow has been promoted to Foreman, Process Area (D-951). He reports to John A. Oppy, General Foreman, Process Area.

Daniel W. Rogers has been promoted to General Foreman, Power Operations (D-831). He reports to Stanley J. Bednarczyk, Supervisor, Power Operations.

Charles M. Crabtree has been promoted to Foreman, Maintenance (D-711). He reports to Robert L. Lallier, General Foreman, Maintenance.

David E. Poetker has been promoted to Foreman, Maintenance (D-726). He reports to Jarvis E. Vanderpool, General Foreman, Maintenance.

Stephen R. Allen has been promoted to Foreman, Maintenance (D-728). He reports to Vancil F. Reed, General Foreman, Maintenance.

Theresa L. Wright has been promoted to Foreman, Janitors (D-743). She reports to Richard A. Snodgrass, General Foreman, Maintenance.

Ray E. Dever has been promoted to Section Head, Environmental Surveillance (D-102). He reports to Edgar R. Wagner, Supervisor, Industrial Hygiene & Health Physics.

Sandra L. Pollard has been promoted to General Foreman, Materials & Services (D-332). She reports to Robert T. Glass, Supervisor, Materials & Service.

## New Employees

David E. Norman, Security Inspector (D-911), Aug. 29.

Mark S. Aliff, Technical Assistant II (D-513), Sept. 1.

Thomas L. Clevenger, Programmer (D-447), Sept. 1.

Dale R. Bauer, Buyer II (D-321), Sept. 16.

James K. Hayes, Administrative Specialist, Staff (D-453), Sept. 16.

Robert B. Colley, Technical Assistant II (D-511), Sept. 16.

Becky J. Hocker, Technical Assistant II (D-511), Sept. 16.

Donna K. Scaggs, Technical Assistant II (D-511), Sept. 16.

Charles A. Seidel, Technical Assistant II (D-511), Oct. 3.

Gary L. Shular, Engineer, Sr. (D-612), Oct. 3.

## Progressions & Promotions

Denise M. Austin, from Engineering Data Control Clerk I to Records Analyst (D-452).

Frankie T. Coriell, from Clerk II to Accounting Clerk II (D-312).

Eva G. Howard, from Personnel Clerk I to Personnel Clerk II (D-021).

Rebecca F. Adkins, from Data Entry Operator II to Data Entry Programming Technician (D-446).

Janet L. Rice, from Clerk II (D-332) to Accounting Clerk I (D-312).

Joseph L. Moore, from Industrial Hygienist, Staff to Industrial Hygienist, Sr. (D-102).

Virginia L. Wagner, from Nurse to Senior Nurse (D-111).

Judith A. Bernthold, from Nurse to Senior Nurse (D-111).

Barbara Halcomb, from Nurse to Senior Nurse (D-111).

Helen E. Jordan, from Nurse to Senior Nurse (D-111).

David L. Marr, from Administrative Specialist to Administrative Specialist, Staff (D-631).

Arvilla F. Thompson, from Administrative Specialist to Administrative Specialist, Staff (D-631).

David P. Larson, from Engineer, Staff to Engineer, Sr. (D-623).

Martha J. Upham, from Scientist, Staff to Scientist, Sr. (D-532).

Stuart E. Payne, from Systems Analyst to Systems Analyst, Sr. (D-447)

Anita B. Brower, from Industrial Relations Staff, Sr. to Administrative Specialist, Sr. (D-450).

Lawrence P. Wettstein, from Instrument Mechanic (D-712) to Designer (D-611).

Mark S. Plecenik, from Engineer, Staff (D-633), to Engineer, Sr. (D-803).

Sharon L. Reeves, from Accounting Clerk I to Accounting Clerk II (D-312).

Janice E. Stanley, from Clerk II (D-802) to Clerk IV (D-221).

Alan K. Bracknell, from Scientist II to Scientist, Staff (D-103).

Allan H. Jefferies, from Engineer, Staff to Engineer, Sr. (D-504).

Frances C. Daloise, from Telephone Operator to Communications Center Operator (D-453).

Mark A. Mentges, from Engineer, Staff to Engineer, Sr. (D-311).

Bettie L. Wyatt, from Mail Clerk (D-451) to Accounting Clerk I (D-312).

## SERVICE MILESTONES

### October 1988

There are 11 employees who reached the 35-year service milestone in October.

They are Walter R. Foster, Donald E. Gilmore, Basil M. Patrick, Atlas M. Jones Sr., Marvin R. Adkins, Frederick R. Flanagan, Thurman J. Harrison, James D. Scott, Jack O. Wineka, Ramey N. Hoskins Jr., and Frank J. Bruch.

Leonard Scaggs attained the 30 year mark.

Barry L. Valentine now has 20 years of service.

Myron D. Cofer, Thomas J. Hickman, Tommy M. Schilling, Harry Steele Jr., Lawrence R. Tieman, Dewey E. Conley, Marvin E. Maynard, Joan L. Blankenship, David R. Stitt, Roy L. Hardin and Wesley K. Handy began work at the plant 15 years ago.

There are 13 who reach the 10-year mark. They are Roger D. Taylor, Allen Williams Jr., Ronnie E. Stone, Eugene C. Seesholtz, Howard C. Sherrett, Judith A. Landrum, Jo R. Davis, Sandra I. Burchett, Laverne J. Underwood, Robert W. Jordan, Charles R. Banks, Betty R. McMeans, and Paul E. Horsley.

Edward A. Engle has five years of service in October.

### November 1988

There are 15 employees reaching the 35-year mark in November. They are Roscoe Wimer Jr., Ralph E. Sowers, John E. Jordan, George E. Henneman, Walter K. Roe, Damon P. Waldron, Karl R. Smith, Leonard D. Woodruff, James E. Brown, James M. Buckler Jr., Leonard R. Niner, Maurice Cremeans Jr., Howard L. White, Carl D. Bush, and William R. Auton.

Vancil F. Reed began work at the plant 20 years ago.

There are 14 employees who reach the 15-year mark in November. They are Bradley K. Harris, Michael L. Gill, Donald R. Mullens, Harold V. Goolsby, Darwin B. Rhoden, Charles F. Bair, Everett S. Grow, Georgene B. Marr, Ella R. Coburn, Earl F. Trogdon, Roger D. Shuff, Gerald D. Quillen, Ronald L. Rinehart and Lloyd A. Wilson.

Helen L. Sheets, Billy M. Kazee, Gomer C. Moore and Ronald G. Tecoma have 10 years of service.

The 11 employees now with five years of service are Robert O. Stanhope, Jeffrey G. Baughman, Douglas P. Trout, Randall W. Bartee, Francis D. Rogers, James E. Ephlin, Jerry R. Riffe, Steven D. Arnold, Joseph P. Dayton, Gregory A. Goslow and Marie G. Paul.

## HOTLINE

To report fraud, waste or abuse, unethical activities, or concerns about security, quality, environmental, safety or health hazards, call the PORTS Energy Systems Internal Audit Hotline 24 hours a day on extension 2401.

# Quality: It's the right thing to do

Every employee of the Portsmouth plant has a job with an output, whether it be a product or a service. People want to do the right thing, and therefore, want to do their jobs right.

The problem that arises most often is determining what is the right thing to do.

Doing the right thing is not always an easy task, but identifying it is less complicated. It's that thing the customer needs, whether the customer be DOE, a fellow employee, supervision, or a user of enriched uranium.

By doing our jobs right the first time, even if it takes a little longer, it will save a considerable amount of time over having to repeat the job to correct mistakes if, in fact, they can be corrected.

There is help to do the right thing. A Quality Assurance and Control program has developed over the 35-year history of the Portsmouth Gaseous Diffusion Plant.

Through the use of statistical techniques and the inspection process, a quality program was implemented in the early 1950s when the plant first began production. In the early 1970s, a formal Quality Assurance and Control function was established.

Quality Assurance assessments and plans were initiated in the mid 1970s, and in the late '70s "operator control" was initiated as a means of further implementing QA philosophy. With the early 1980s came the use of Statistical Process Control. The late 80's have focused on the introduction of the Performance Improvement Process (PIP) and NQA-1 elements needed in the workplace to challenge the "quality first" output.

Since doing things right is not always an easy task, one tool we have to help us do things correctly is Statistical Process Control (SPC). This helps an employee, as controller of a system, to decide through the use of measurements and charting techniques whether or not to make a change in the system.

Productivity and quality go hand in hand to help ensure employee and customer satisfaction. We each have a customer for our work output, even if that customer is our fellow employee at the next work station.

Past history has shown that the best productivity gains have been realized when quality (what the customer wants and needs) is used as the basis for all work decisions.

So, to improve productivity, we must do the job right the first time, limit variability, have reasonable specifications or expectations, and have the willingness or desire to meet those expectations.

Working together, we can meet our challenge of fostering a successful business and a meaningful workplace.

The plant's QA Education Subcommittee is designed to assist the organization with the implementation of the most current QA methods. Its charter requires that it establish and maintain a QA Awareness Program, plan and implement QA-related

special events, promote QA-related seminars, and provide new employee QA orientation.

The members of the subcommittee are Connie Eckhart, QAS, chairperson; Gary Coriell, OCAW representative; Linda Jarrell, Plant Statistician; Chip Lawson, Security Inspector; Jerry Moore, Personnel; and Don Rockhold, QAS, Production Division. They will be evaluating program awareness ideas and implementing future quality-related programs.

Quality Assurance and Control become highly visible during National Quality Month each October. This annual public awareness campaign launched in 1984 has a purpose of stimulating, supporting and strengthening America's commitment to "Quality First." The campaign calls attention to quality improvement as the best strategy for increasing America's competitiveness in the global marketplace.

There is a need to achieve massive savings in the workplace to avoid the rising costs of enriching uranium. As PORTS

focuses on the world-wide markets and other broadening horizons, each employee can and should contribute their ideas for improved quality. We must avoid any resistance to change and new ideas. As QA awareness brings new ideas to the various areas of the plant, each employee must have the desire to improve products and services.

All employees are invited to forward suggestions relating to their quality accomplishments or quality implementation ideas to the subcommittee. Pass along to the subcommittee comments regarding quality actions whenever you see them occurring in the workplace or send the subcommittee your letter on-going quality services or processes at PORTS.

Martin Marietta was "Number One" in the aerospace and defense industries of "America's Technology Champions" as rated in the June 1988 "High Technology Business" magazine. The corporation's Portsmouth plant operation should feel a part of these new required quality trends the the desire to keep "Quality First."



## Enrichment course students

Participants and instructors in recent "ABC's of Enrichment Services" courses were (top photo) David Knittel; Bob Hamilton, DOE-ORO; Belinda Ford, DOE-ORO; San Wozniak, Wisconsin Power; Bob Boney, DOE-DC; Minoru Ikeda, Mitsui & Co.; Al Donielson, Pacific Gas & Electric; John Stamos, Edison Electric; Greg Byrd, Virginia Power; Carol Carlson, Florida Power; Randy Scilla, Ohio Edison; John Mantyk, Florida Power; Diane Duck, MMES-OR; David Hain, Arizona Power; John Woodside, Ohio Edison; Paul Osterwald, New York Power; Eric Lewis, American Electric Power; Randy Irwin, Union Electric; Steve Nader, Duke Power; John Schatz, Texas Power; Roger Miller; Karl Schucker; and Robert Wilkins, Meddle South Power. In the bottom photo are Judy Vollrath; Michelle Stokes, MMES-OR; Diane Gillis, DOE-DC; Susan Beckman, MMES-OR; (back row) Mark Roth, DOE-ORO; Dave Knittel; Larry Forsythe, DOE-DC; Simon Hodges, MMES-OR; Greg Thoms; Roger Miller; Karl Schucker; Roger Bolin, MMES-OR; Mike Taylor, MMES-OR; Harold Kneeland; Roger Kick, MMES-OR; Steve Schneider, DOE-DC; and Dave Donovan.

## MARTIN MARIETTA

Energy Systems at Portsmouth

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# Report on Benefit Plans for 1987

The reports in this special section summarize the annual reports for the Martin Marietta Energy Systems, Inc., Portsmouth Plant Benefit Plans for 1987 and are written in a "language" specified under regulations prepared by the U.S. Department of Labor.

The complete annual reports for the

- Medical and Life Insurance Benefits Plan for Salaried Employees
- Medical and Life Insurance Benefits Plan for Hourly-Rated Employees.
- Disability Income Program for Salaried Employees
- Savings Plan for Salaried Employees at the Portsmouth Uranium Enrichment Plant
- Savings Plan for Bargaining Unit Employees at the Portsmouth Uranium Enrichment Plant
- Retirement Plan for Salaried Employees at the Portsmouth Uranium Enrichment Plant
- Pension Plan for Hourly Employees at the Portsmouth Uranium Enrichment Plant have been filed with the Internal Revenue Service as required under the Employee Retirement Income Security Act (ERISA) of 1974.

The Employer Identification number for the above plans is 52-1318516.

## Summary Annual Report: 1987 Insurance Plans

This is a summary of the annual reports for the insurance plans listed below. The plans have contracts with the insurance carriers shown to pay all claims incurred under the terms of the plans. Because these plans are so-called "experience-rated" contracts, the premium costs are affected by, among other things, the number and size of claims.

Plan Name	Insurance Carrier	Total Premiums Paid for Plan Year Ending 12-31-87	Total Benefits Paid for Plan Year Ending 12-31-87
Medical and Life Insurance Benefits Plan for Salaried Employees	Aetna Life & Casualty Insurance Company	\$4,420,191	\$4,162,874
Medical and Life Insurance Benefits Plan for Hourly-Rated Employees	Aetna Life & Casualty Insurance Company	\$5,021,892	\$4,815,059
Disability Income Program for Salaried Employees	Aetna Life & Casualty Insurance Company	\$251,020	\$316,743

## Your Rights to Additional Information

Participants in these insurance plans have the right to receive a copy of the full annual report, or any part of it, on request. Included in that report is insurance information.

### The Savings Program for Employees of Martin Marietta Energy Systems, Inc., Portsmouth Plant

This is a summary of the annual reports of the savings plans for 1987 including basic financial statements.

#### Savings Plan for Salaried Employees at the Portsmouth Uranium Enrichment Plant

Benefits under the Savings Plan for Salaried Employees are provided from trust funds. Plan expenses were \$250,685 in benefits paid to participants and beneficiaries. A total of 1,004 persons were participants in or beneficiaries of the plan at the end of the plan year.

The value of plan assets, after subtracting liabilities of the plan, was \$8,545,272 as of December 31, 1987, compared to \$5,179,278 as of January 1, 1987. During the plan year, the plan experienced an increase in net assets of \$3,365,994. This included unrealized appreciation or depreciation in the value of the plan assets; that is, the difference between the value of the plan assets at the end of the year and the value of the assets at the beginning of the year or the cost of assets acquired during the year. The plan had total income of \$3,616,679 including employer contributions of \$396,143, employee contributions of \$2,163,690, and earnings from investments of \$1,056,846.

#### Savings Plan for Bargaining Unit Employees at the Portsmouth Uranium Enrichment Plant

Benefits under the Savings Plan for Bargaining Unit Employees are provided from trust funds. Plan expenses were \$3,336 in benefits paid to participants and beneficiaries. A total of 49 persons were participants in or beneficiaries of the plan at the end of the plan year.

The value of plan assets, after subtracting liabilities of the plan, was \$255,181 as of December 31, 1987, compared to \$98,734 as of January 1, 1987. During the plan year, the plan experienced an increase in net assets of \$156,447. This includes unrealized appreciation or depreciation in the value of the plan assets; that is, the difference between the value of the plan assets at the end of the year and the value of the assets at the beginning of the year or the cost of assets acquired during the year. The plan had total income of \$159,783 including employer contributions of \$21,209, employee contributions of \$118,544 and earnings from investments of \$20,030.

## Your Rights to Additional Information

Participants have the right to receive a copy of the full annual report, or any part of it on request. Included in that report are:

1. an accountant's report;
2. Financial Statements; and
3. assets held for investment.

### Retirement Program for Employees of Martin Marietta Energy Systems, Inc., Portsmouth Plant

This is a summary of the annual reports for the Retirement Plan for Salaried Employees and the Pension Plan for Hourly Employees for 1987. These plans have a contract with the Prudential Insurance Company of America to allocate funds toward group annuities.

## Basic Financial Statement for the Retirement Plan for Salaried Employees

Benefits under the plan are provided by Group Annuity Contracts. Plan expenses were \$2,429,587, which include \$2,292,286 paid to participants and beneficiaries of the plan and \$137,301 for administrative expenses. A total of 1,616 persons were participants in or beneficiaries of the plan at the end of the plan year, although not all of these persons had yet earned the right to receive benefits.

The value of plan assets after subtracting liabilities of the plan, was \$78,151,735 as of December 31, 1987 compared to \$72,916,369 as of January 1, 1987. During the plan year, the plan experienced an increase in its net assets of \$5,235,366. The plan had total income of \$7,664,953, including employee contributions of \$280,824 and earnings from investments of \$7,834,129.

## Basic Financial Statement for the Pension Plan for Hourly Employees

Benefits under the plan are provided by Group Annuity Contracts. Plan expenses were \$1,679,575 which include \$1,587,648 for benefits paid to participants and beneficiaries and \$91,927 for administrative expenses. A total of 1,784 persons were participants in or beneficiaries of the plan at the end of the plan year, although not all of these persons had yet earned the right to receive benefits.

The value of plan assets, after subtracting liabilities of the plan was \$51,354,070 as of December 31, 1987 compared to \$48,204,902 as of January 1, 1987. During the plan year the plan experienced an increase in its net assets of \$3,149,168. The plan had total income of \$4,828,743 derived entirely from investment earnings.

## Minimum Funding Standards

An Actuary's statement shows that enough money was contributed to both plans to keep them funded in accordance with the minimum funding standards of ERISA.

## Your Rights to Additional Information

Participants have the right to receive a copy of the full annual report, or any part thereof, on request. The items listed below are included in that report:

1. an accountant's report;
2. assets held for investment;
3. transactions between the plan and parties in interest (that is, persons who have certain relationships with the plan);
4. actuarial information regarding the funding of the plan.

## FOR MORE DETAILED INFORMATION

To obtain a copy of the full annual reports, or any part thereof, write or call the office of G.P. Zoellner, Superintendent, Policies and Services. The plan administrator is the Assistant Treasurer, Martin Marietta Energy Systems, Inc., P.O. Box 2003, Oak Ridge, TN 37831 (614) 574-9961. Copying costs are 25 cents per individual page; \$8.25 for the complete insurance plans; \$7.05 for each savings plan annual report; and \$5.50 for each retirement program plan annual report.

Participants have the right to receive from the plan administrator, on request and at no charge, a statement of the assets and liabilities of the plan, or a statement of income and expenses of the plan. For participants requesting a copy of the full annual report from the plan administrator, these two statements will be included as part of that report. The charge to cover copying costs given above does not include a charge for the copying of these portions of the report because these portions are furnished without charge.

Participants also have the legally protected right to examine the annual report in the Cashiers Department of Martin Marietta Energy Systems, Inc., Portsmouth Plant and at the U.S. Department of Labor, Washington, DC, or to obtain a copy from the U.S. Department of Labor upon payment of copying costs. Requests to the Department should be addressed to: Public Disclosure Room, N4677, Pension and Welfare Benefit Programs, U.S. Department of Labor, 200 Constitution Avenue, Washington, DC 20216.



## Hazardous materials consultant comes to Portsmouth

Mr. Harold Reed, a hazardous materials handling consultant, came to Portsmouth this summer to provide training to comply with the CFR 49 (DOT) Transportation Safety Act of 1974. The training began with two-hour overview sessions attended by management and supervisory personnel. These were followed by a one-day training session over the next four days for 135 employees involved in the handling and transportation of hazardous material. A development team — utilizing a concept proposed for all mandatory compliance training programs — planned, coordinated and managed this training effort. Team members were Sharon Grooms, David Nickel, Larry Williams, Francis Kovac, Dick Black, John Simmering and Gary Eisnagle.

# VIDEO STORE

## Tapes available for home use

Copies of "Portsmouth Today" video magazines produced for presentation to employees during the Plant Manager's Update Sessions as well as other special videotapes are now available for loan to employees on a first-come, first-served basis.

This service is being provided so that family members can see video stories about both daily operations and special

programs and activities at the plant. Family members also are often featured in these video magazines, participating in activities such as the Fun Run, Christmas party and summer picnic.

The tapes are not to be copied or used for any type of presentation outside the home. Presentations of plant video programs to school and civic organizations and individuals will be arranged by Public Relations. Requests from outside organizations are to be referred to Public Relations.

The tapes also cannot be taken into any cleared area of the Portsmouth plant. This security requirement was a condition which made the loan program possible.

"We do a lot of good things at the Portsmouth plant, and we should show it off more," commented Ralph Donnelly, plant manager, at a recent "Update" session.

Three VHS copies and one Beta copy of the "Portsmouth Today" video magazines (numbers 1, 2, and 3) and a tape which contains a Martin Marietta Corporation film, an Energy Systems' overview, and discussion of DOE's uranium enrichment industry.

Tapes are available for one night or over weekends.

Other videotapes entering the "Employee Video Loan Program" (such as the Savings Bond entertainment program) will be announced upon their availability.

Employees who want to borrow a videotape must first visit the Public Relations Department, obtain the appropriate authorization form, and then exit plantsite through the Personnel Records area in the X-100 Administration Building to present the authorization form and obtain the videotape.

Borrowers must sign a log in Public Relations to acknowledge their use of the loan program.

On the next working day, the employee must enter plantsite through the Personnel Records area to return the videotape.

## Science program hits 25th year

More than 59,000 students in area schools have now seen a total of 495 science demonstration programs through the courtesy of personnel of the Portsmouth Gaseous Diffusion Plant.

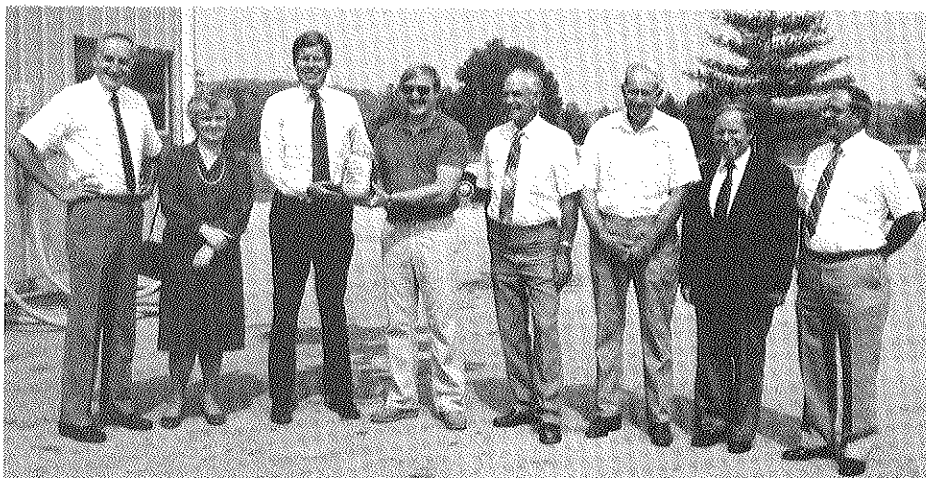
The Quality and Technical Services Division's Science Demonstration and Special Activities Program just concluded its 25th consecutive school year of offering science demonstrations.

During the 1987-88 school year, MMES participants responded to 14 school requests by performing 22 presentations for 3,980 students from kindergarten through high school seniors.

Requests for demonstrations come to the plant's Public Relations Department, which forwards approved applications to Art Cardenas, the program coordinator, who finalizes demonstration schedules and makes the necessary arrangements between MMES personnel and the schools.

Action through the Special Activities Program also was above average for the school year. The plant provided 23 judges for science fairs at the local, district and state levels.

The most recent recruiting program for science demonstration participants was very successful; 18 individuals were recruited into the program.



The Portsmouth plant's water distribution service provided during the 1988 drought reached the one-million gallon mark Sept. 10. Present for the milestone event were Ralph Donnelly; Mrs. Herman Montgomery, wife of the late Pike County Commissioner; Congressman Bob McEwen; OCAW Local 3-689 President Greg Fout; Pike County Commissioners Ralph Brewster and Dr. John Trainer; DOE-PEO Area Manager Gene Gillespie, and Bob Childers, General Foreman, Utilities Operations.



## Martin Marietta donates to 4-H

Upon its completion, a permanent improvement plan for the Elizabeth L. Evans Outdoor Education Center near Jackson should enable the facility to provide a greater range of services for area youth and adults. Martin Marietta contributed \$5,000 this spring to help with this major improvement effort. Plant Manager Ralph Donnelly (left) visited to look over improvements activities in progress. At right is Duane Plymale, South District Specialist for 4-H, Ohio Cooperative Extension Service.

## Alternate use marketing incites GCEP occupancy

Two years of extensive effort in marketing the Gas Centrifuge Enrichment Plant (GCEP) for alternate use is "paying off" as the program reaches culmination.

A significant milestone event in this activity occurred when the Ohio Army National Guard accepted the X-751 Mobile Equipment Garage in May.

Since that time, efforts have been directed toward the Defense Logistics Agency (DLA) use of GCEP facilities.

In August, the Maintenance, Stores, and Training Building (X-7721), the north half of Process Building No. 2 (X-3002), Vehicular and Pedestrian Portals

X-1107DV and X-1107DP and the X-2207D parking lot were turned over to DLA.

In early October, DLA took occupancy of the south end of Process Building No. 2 and the XT-847 Warehouse.

Interservice support agreements between the Department of Energy and DLA permits Martin Marietta to provide a broad range of services for operations, maintenance and fire protection of the facilities.

Modifications to these agreements will be made to include other GCEP facilities as they are turned over to DLA.

With the October turnover of GCEP facilities, DLA occupies three full buildings. Occupancy of three more is planned over the next two years.

The DLA's Pike County facility will become an annex to its Columbus operation.

## Water project ends Sept. 30

More than one million gallons of potable water were provided free of charge this summer to people who live near the Portsmouth Gaseous Diffusion Plant.

Because of severe seasonal drought conditions, Martin Marietta Energy Systems and the Department of Energy made water available beginning July 8 to plant neighbors.

The one millionth gallon was dispensed Saturday, Sept. 10.

The program concluded on Friday, Sept. 30, after a total of 1,338,668 gallons had been distributed over the three-month period to 2,304 recipients, an average of 588 gallons each. Many of the more than 2,000 who signed the log to receive water were repeat "customers" with severe drought problems.

The water was available daily from the plant's own drinking water supply system. Distribution was made from the X-751A Sanitary Landfill Utility Building.

## Benefit feature pays handsomely

The time that Larry Heavrin of the Engineering Division at the Paducah Gaseous Diffusion Plant recently took to carefully review a hospital bill resulted in his receiving a "reward" of \$2,425. This was half of the \$4,850 overcharge he detected.

The Hospital Bill Audit Award is offered by Energy Systems under the Health Care Plan for salaried employees as an incentive to audit hospital bills totaling less than \$15,000.

The reward is 50 percent of the amount saved, less any tax payable.

New benefit plans for Portsmouth plant employees becoming effective Jan. 1, 1989, include the audit award program.



# Energy Systems assists dinosaur recovery effort

An acoustic technique developed by scientists at the Oak Ridge National Laboratory (ORNL) for imaging underground features may help paleontologists pinpoint the bones of the longest dinosaur ever discovered — the 110-foot *Seismosaurus*, in New Mexico.

ORNL has developed a computer-based method for creating high-resolution sonic images of buried objects. Dr. Alan Witten of Energy Systems devised the technique to locate and identify buried hazardous wastes. He believes his process will also help paleontologists unearth additional skeletal remains of the 144-million-year-old *Seismosaurus*, or "Earth Shaker,"

bones of which have been discovered in the high desert near Albuquerque.

"The ORNL method could cut the time needed to unearth the dinosaur from 10 years to two, cut labor time for excavating other dinosaurs by a factor of four or five, and greatly increase the percentage of bones we'll be able to recover," said Dr. David Gillette, state paleontologist for Utah and manager of the *Seismosaurus* excavation project being sponsored by the National Geographic Society.

Several vertebrae from the 50-ton *Seismosaurus* were discovered in a sandstone formation by hikers three years ago.

Following report of the find to the New Mexico Museum of National History, a preliminary excavation uncovered eight vertebrae, a piece of thigh bone, and other skeletal parts. The tail and hip were then exposed and 25 vertebrae removed.

Since the 19th century, paleontologists in various parts of the world have been using hammers, j-chisels, and brushes to remove outer rock and soil and expose skeletons. The new ORNL technique could help workers reach remains more quickly with power equipment, such as a backhoe.

ORNL's device provides an image of *Seismosaurus* by measuring changes in

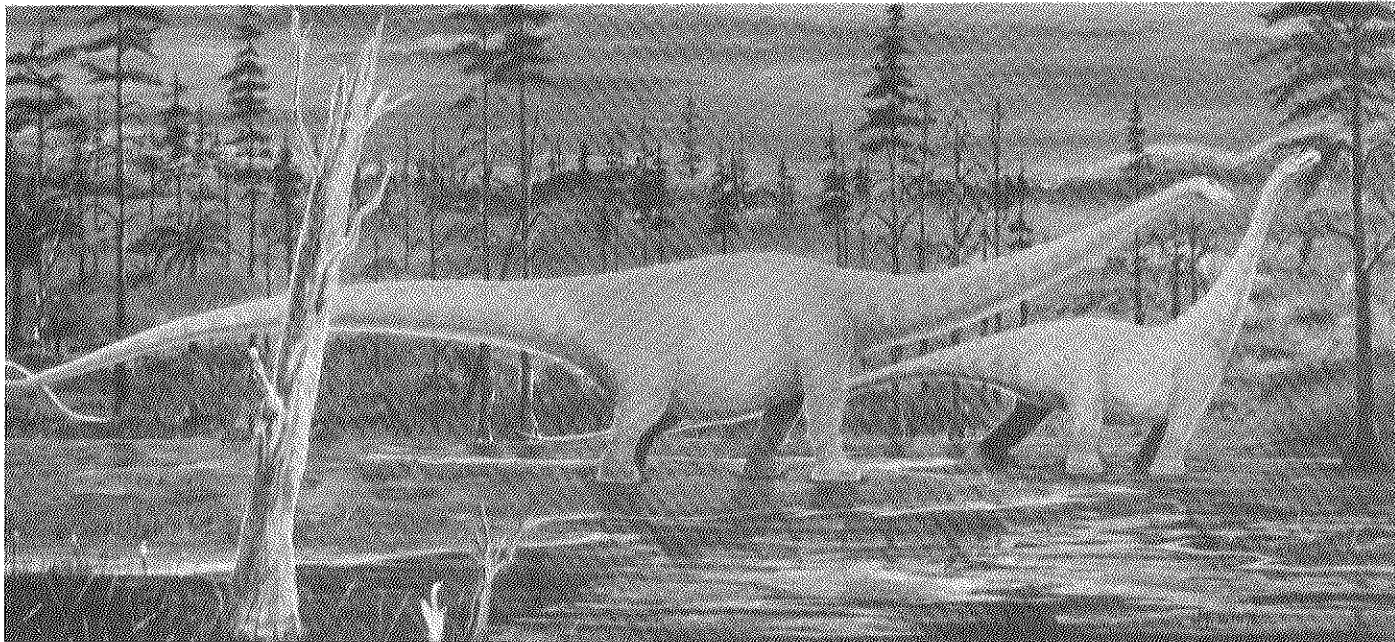
transmitted sound waves as they travel from the ground surface through sandstone and bone to reach microphones strategically placed at various depths. The imaging device yields a gray-scale picture of differences in sound speed between the sandstone and dinosaur bone. The images give accurate information on the size and location of buried bone, so that paleontologists know exactly where to dig.

The technique is helping to revolutionize field work in paleontology, said Gillette, who noted that remote-sensing removes a lot of the guesswork associated with such searches and helps assure that more of the skeleton remains at the site.

The *seismosaurus* is at least 20 percent longer than its close relatives, the *Diplodocus* (87 feet), the *Brontosaurus* (85 feet), and the *Brachiosaurus* (80 feet), which is considered the heaviest animal. The four-legged, plant-eating dinosaur was named *seismosaurus* meaning — "Earth Shaker" — by Gillette.

Witten may use his technique to locate dinosaur bones elsewhere in New Mexico and Utah after returning this month to obtain a more complete image of *seismosaurus*, eight to 12 feet under federal land.

The find is important to scientists because its bones are not completely fossilized like those of most unearthed dinosaurs.



## Nuclear use could help halt world climate decline

This summer's record heat and drought are having a noticeable impact on the public discourse over nuclear energy policy.

Sparking the interest were:

— Brownouts in eastern New England and the Mid-Atlantic states in mid-June, coupled with scattered power shortages in other regions. These focused attention for the short term on declining utility capability margins in several U.S. regions.

— Warnings from scientists, who for the first time linked an accumulation of man-made gases in the atmosphere to a global warming trend the "greenhouse effect." This led to calls for the U.S. and other nations to plan on using more nuclear energy over the long term.

"There is bitter irony in the fact that utilities had to take emergency measures to limit electricity demand, when more than 2,000 megawatts of generating capacity could have been available from the Seabrook and Shoreham nuclear plants," said William McCollam, president of the Edison Electric Institute.

Although electricity supply was generally sufficient in other regions, demand forced consumption to record levels.

The North American Electricity Reliability Council (NERC), the group formed after the 1965 New York City blackout to monitor the adequacy of electricity supply, has estimated that U.S. capability margin would drop to 21 percent by July. For specific regions, the predicted margin was even tighter: 16.5 percent in New England, 15.2 percent in the Southeast and the Middle Atlantic, and as low as 12 percent in the South.

"The truth is that we can no longer sustain a growing economy with our current electrical supply," said Harold B. Finger, U. S. Council for Energy Awareness (USCEA) president and chief executive officer. "The growth in our electricity use is outpacing our electrical capacity additions. I hate to think that the country has reached the point where only a recession can guarantee that our electricity supplies are adequate."

Longer-term implications for nuclear energy were inherent in the widely reported June testimony to a Senate panel of NASA scientist Dr. James E. Hansen, who said he is "99 percent certain" the "greenhouse effect" is causing a global warming trend. Hansen said it is impossi-

ble to attribute any single heat wave to the greenhouse effect, but he noted the four warmest years in the history of instrument records (1980, 1981, 1983 and 1987) all occurred in this decade. In addition, 1988 may set a record, he said.

Edward M. Davis, president of the American Nuclear Energy Council, issued a public invitation to groups opposed to nuclear power "to consider supporting this energy source as part of a balanced energy policy because it does not contribute to the apparent global warming trend known as the 'greenhouse effect.'" His remarks came in testimony to two House subcommittees.

"We must realize that no single energy source created the greenhouse effect and that no single source can be dismissed if we are to solve the problem," Davis said. A balanced policy should include conservation, renewables, appropriate use of fossil fuels, and an expanded role for environmentally clean nuclear energy, he said.

"This will involve some difficult choices, but it is an essential first step in preserving our environment and our standard of living for the next generation of Americans."

## Police capture tourney awards

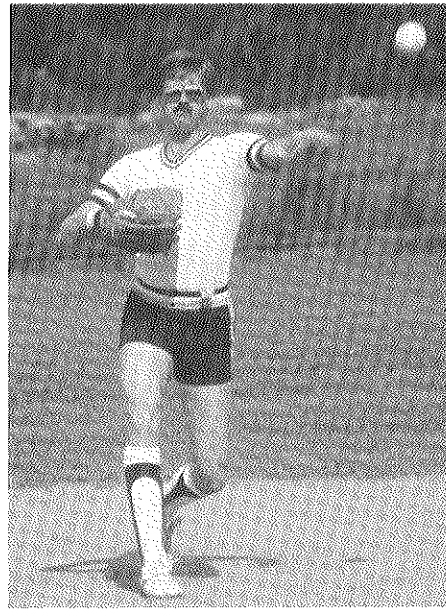
The Portsmouth plant's Protective Force Pistol Team took several honors in DOE Small Arms Tournaments conducted in August and September.

Representing the Portsmouth Plant at tournaments Aug. 14-19, in Albuquerque were George Clark, Jeff Simpkins, Donnie Martin, Tony Jones, Jon Gahm, Jeff Walburn, and Ricky Bowles.

This tournament included several events testing the use of handguns, shotguns, and rifles. The team received a "placement" award in both the two-man (Gahm and Walburn) and four-man (Clark, Simpkins, Martin, and Jones) events of Police Practical Pistol Competition. Clark earned the ninth place award for the shotgun in the Combat Handgun, Rifle and Shotgun events.

At the Tennessee State Pistol Match conducted in Oak Ridge Sept. 10-11, Portsmouth was represented by Simpkins, Jeff Jarrells, Richard Howard and Gahm. The team won seven first place awards as follows: Simpkins, Sharpshooter and Matches 2 and 3; Jarrells, Marksmanship Event and Match 5; Howard, First Ever Unclassified Event; and Gahm, Match 4.

Jim Ephlin serves as the Portsmouth Plant Instructor/Team Leader.



## X-710 & Company wins championship

More than 150 participants played 13 games on two fields during the double elimination softball tournament on Saturday, Aug. 27.

A total of seven teams competed for the Portsmouth plant's softball title.

Forced into two extra innings in the final game, the X-710 & Company defeated the Chemical Operators by a score of 4-3.

Other teams represented at the annual tournament were the "A" Team, Maintenance All-Stars, "Guards," Buzzards, and Dept. 829.

The annual event is sponsored by the plant's Employee Activities Committee (EAC). Serving as the tournament's director was Jim Whitt, who foresees an increase in participation for next year.

"Many of the newer employees are in the age group that participates in active sports," Whitt explains, "and more teams would produce a two-day tournament."

Assisting Whitt in the coordination of this event were Butch Fouch, Rusty Cosby and John Gedeon.

## Incinerator meets required standards, passes trial burns

The first series of trial burn tests at ORGP's new toxic waste incinerator were completed May 21, and preliminary data indicated that the incinerator met the required standards.

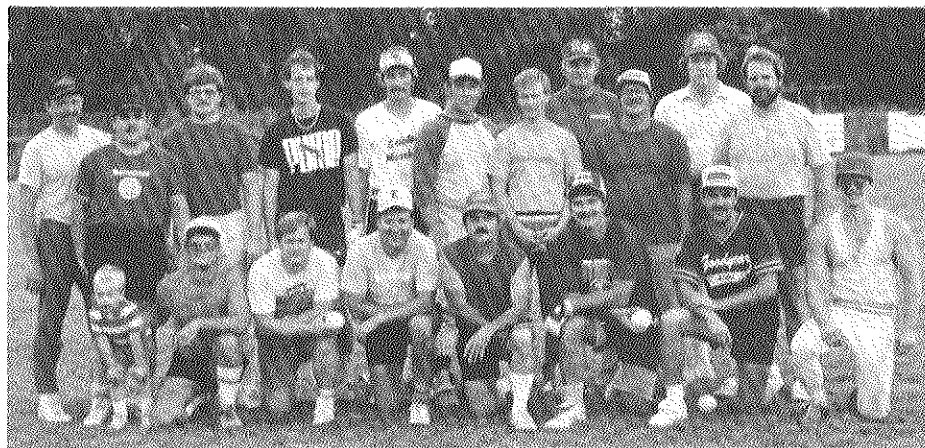
The \$26 million Toxic Substances Control Act (TSCA) incinerator was built to process uranium-contaminated poly-chlorinated biphenyls (PCB's), absorbents, biological materials, waste oils, solvents, hazardous wastes and a variety of sludges stored at DOE facilities.

The six-day trial burn was conducted for officials of the U.S. Environmental Protection Agency (EPA) and the Tennessee Department of Health and Environment (TDHE), which are the permitting agencies for the facility. The burn was intended to confirm the incinerator's capability to meet the standards of TSCA.

The trial burn consisted of two tests of three runs each. One test was conducted to demonstrate the incinerator's ability to burn a mixture of solid and liquid PCB's and to establish the maximum allowable feed rate of PCB's to the unit. The second involved only solid PCB wastes and was conducted to establish a minimum temperature at which the incinerator could destroy PCB's when volatile liquids are not being fed into the system.

PCB's were widely used as insulating materials in transformers, capacitors, and other electrical hardware before they were banned in the 1970's.

Under TSCA regulations, the incinerator is required to destroy 99.9999 percent of PCB's fed into the system. Sampling of feed materials, ash and air emissions was performed by an independent laboratory, and an analysis is to be available by August. EPA is evaluating trial burn results to confirm that TSCA regulatory requirements have been met.



X-710 & Company team members were (front row) Nicholas Kelley (bat boy), Keith Banks, Randy Sizemore, Buck Walter, Larry Hart, Jim Goodson, Terry Nickell (captain), Chuck Banks, (back row) John Hobensack, Wayne Skaggs, Marry Kelley, Damon DeFillion, Frank Barbaritis, Roger Foster, Brent McGinnis, Randy Smith, Gary Timmons, Dan Mullins and Dave Helmick. The team won the company double elimination softball title Aug. 27.

## Nuclear importance realized

According to a national poll conducted in May, an overwhelming majority of Americans — 81 percent — believe nuclear energy will be important in meeting the nation's electricity needs. Fifty-five percent believe that nuclear energy will be very important — an increase of 20 percentage points over the past three years.

The results of the poll were reported June 14 by Ann Bisconti, vice president of research and program evaluation of the U.S. Council for Energy Awareness, at the annual meeting of the American Nuclear Society in San Diego. The poll was conducted by Cambridge Reports, and represents U.S. public opinion with an accuracy of plus or minus 2.5 percentage points.

The poll also showed that 76 percent of the American public believe the need for nuclear energy will increase in the years ahead, and 78 percent believe it is likely that additional nuclear plants will have to be built in the future, Bisconti reported.

"These positive views are shared by people all across the USA, by women, men, Democrats, Republicans, independents, and people in all the different regions," she said.

In an open-ended question (in which no

responses are suggested when the question is asked), Americans named nuclear energy well ahead of all others as the primary source of electricity 10 years from now, Bisconti said. Nuclear was named 36 percent of the time; solar 13 percent and coal 11 percent.

"The data show that the public is counting on nuclear energy being available to meet their needs," Bisconti said.

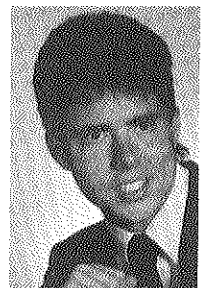
Similar results in a poll of Canadians were reported at the general meeting of the Canadian Nuclear Association in Winnipeg, Manitoba. Rita Dionne-Marsolais, CNA's vice president for information, announced that 76 percent of the public believe nuclear power plants will be important in meeting Canadian energy needs in the years ahead. The Canadian poll was conducted in May by Decima Research. In releasing the results, Dionne-Marsolais said: "The poll contains a strong endorsement for nuclear power for the future."

The U.S. Council for Energy Awareness provides information on energy issues, with emphasis on the importance of electricity and the sources that provide it, including nuclear energy and coal, and examines technical issues related to the peaceful uses of nuclear technology.

## GRADUATES



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Dave Gibson  
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