

Energy Systems at Portsmouth

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

Volume 7

Piketon, Ohio

April 1992

Number 3

Employees to participate anonymously Communications Survey scheduled for May

Preparations are under way for the 1992 Employee Communications Survey, scheduled to be conducted from May 11 to June 5. Posters announcing the survey have been placed on plant bulletin boards.

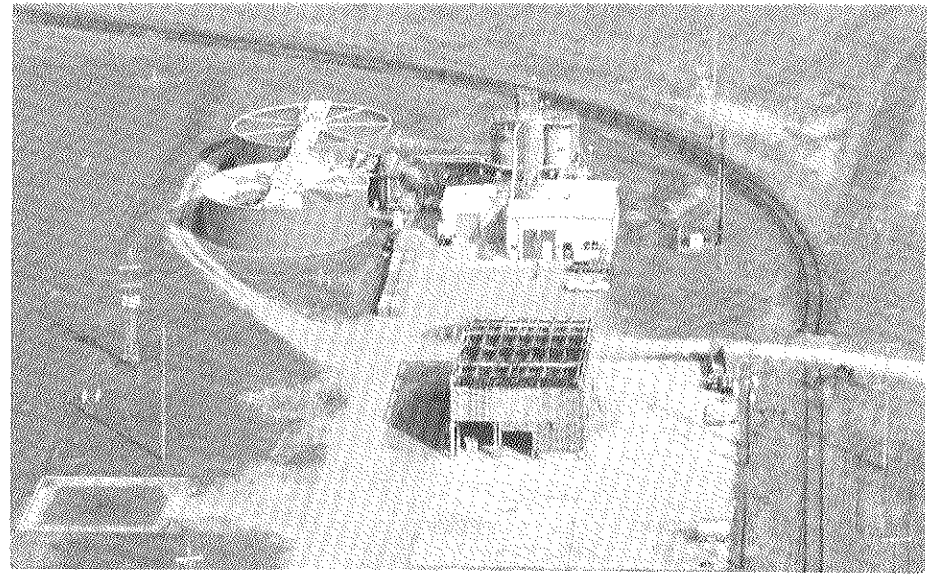
"We hope employees will keep in mind that their opinions are important," said 1992 survey team sponsor Tom Kohntopp of Energy Systems Training and Development. "Survey results are used in many ways, both inside and outside of Energy Systems. For example, our input becomes a part of national data bases used by both Martin Marietta and other corporations in strategic-planning and policy decisions that can impact the future of American industry.

"Past survey results have been utilized extensively within Energy Systems," Kohntopp said. "The company's Values Program strongly emphasizes the importance of clear two-way communication at all levels. The survey is an ideal means of achieving that goal, and many actions have been taken throughout the organization to address concerns expressed by employees during the 1986 and 1989 surveys."

The coordinator for the Portsmouth Employee Communications Survey is LaDonna Coriell, Personnel Relations. She is the Portsmouth representative to the Leader Task Team (LTT) which consists of leaders from each site. In turn, she has formed a site task team which consists of Values Council members from each division. They include Jane Johnson, Human Resources; Beth Keener, Safeguards and Security; Sandy Fout, Engineering; Karen Hollback, ES&H; Josie Blackmon, Waste Management; Elaine Litten, Maintenance; Joyce Hopper, Business Services; Don Rockhold, Quality Programs; Keith Banks and Lila Donley, Technical Services; and Keith Vanderpool, Operations. Coriell will represent the Plant Manager's area as well.

Members of the site task team also have team members working under them. All participants will be working for the same purpose of obtaining information and opinions from all employees regarding a variety of work-related matters, developing a communications channel, monitoring the

(Continued on Page 5)



Trial shutdown of X-616

The chemical feed systems at the X-616 Chromate Reduction Facility were turned off on April 9. The Ohio EPA granted permission to terminate treatment for a 90-day trial period. During this time, the effluent from the facility will be closely scrutinized to ensure compliance with the National Pollutant Discharge Elimination System (NPDES) permit. If X-616 continues to operate within the NPDES permit at the end of the trial period, a request will be submitted to OEPA to make the treatment termination permanent.

Fields succeeds Sommerfeld as company's Vice President for Uranium Enrichment

Wendell E. Fields has been appointed Vice President for Uranium Enrichment.

Fields most recently served as director of Martin Marietta Corporation's Space Launch Systems Company at Canaveral Air Force Station in Cape Canaveral, Florida. In his new position, he succeeds Kenneth W. Sommerfeld, who recently was appointed Martin Marietta Energy Systems Vice President for Technical Operations.

Fields will have overall responsibility for uranium enrichment and other operational activities at Paducah and Portsmouth. He also will be responsible for oversight of the company's participation in the Atomic Vapor Laser Isotope Separation (AVLIS) program.

A native of Colorado, Fields received bachelor's degrees in business and in electrical engineering from the University of Colorado. He joined Martin Marietta Corporation in 1957 and has held numerous management positions in test, operations, and manufacturing areas in the U.S. Air Force Titan Program, and more recently, in the Space Shuttle Program, including an appointment as director of Business Operations for the corporation's shuttle program at Vandenberg Air Force Base, California.

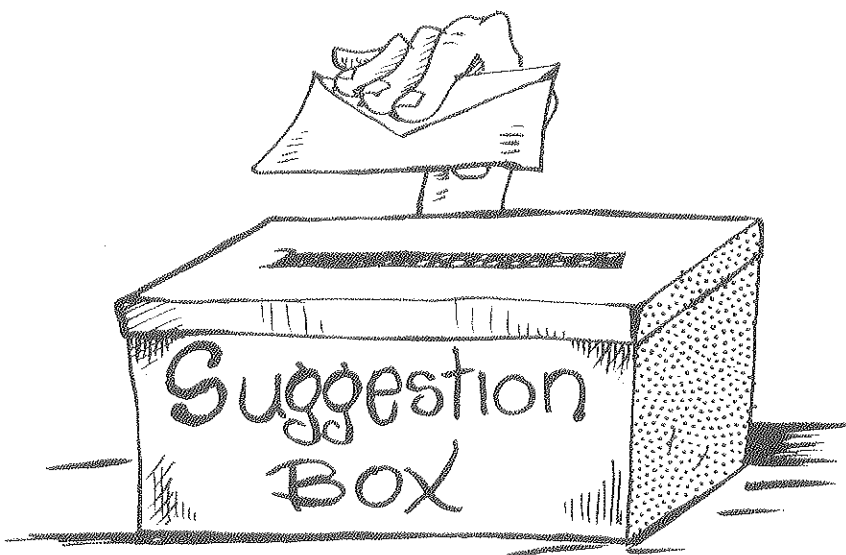
In 1989, Fields was named Manager of the Year for Martin Marietta's Astronautics Group, the parent organization of the Space

Launch Systems Company, for his leadership in directing successful launch activities at Cape Canaveral. He received the corporation's highest leadership award, the Jefferson Cup, in 1990.

Fields has been active in community activities, serving on the boards of directors of Junior Achievement of Central Brevard; the Brevard Symphony Orchestra; the Cocoa Beach Chamber of Commerce; the Civilian-Military Committee of the U.S. Air Force, 45th Space Wing; the National Space Club, Florida Committee; and the United Way. He also is a member of the Board of Overseers for the Florida Institute of Technology School of Management.



Fields



GRADUATE PORTRAITS

Sons and daughters, of employees or retirees, that are graduating from high school, college or technical schools this spring will be honored in an upcoming issue of Energy Systems at Portsmouth.

Billfold size photos of graduates should be submitted to Public Affairs, MS 1132, X-100 Building, no later than Friday, June 19.

The graduate's full name, school name, employee's name, department number and mail stop must be lightly written, in ink, on the back of the portrait.

Steps to preparing uranium for use as fuel

YOUR ROLE IN THE NUCLEAR FUEL CYCLE

This article is the first in a continuing series that will describe the role of the Uranium Enrichment Enterprise in the worldwide uranium enrichment market and the nuclear industry.

When a customer's uranium arrives for enrichment at a DOE gaseous diffusion plant, it marks another stage on a long journey. This journey will take the uranium through the nuclear fuel cycle — the process of converting the potential energy in uranium ore into a form that electric utilities can use to generate power for homes and industries around the world.

By performing the vital service of uranium enrichment for utility customers, the Paducah and Portsmouth plants serve as an integral part of this fuel cycle. In your work in the Energy Systems enrichment organization, you also have a vital role. Whether you load or unload uranium cylinders, enter uranium feed into the cascade or withdraw product, sample product cylinders or stack tails cylinders, provide security or perform maintenance for the plant, or carry out any of the plant's numerous administrative functions, you are part of this worldwide activity that generates billions of dollars in revenues each year.

Five major processes are involved in preparing uranium for use as fuel in today's light water nuclear reactors. These steps, which are known as the "front-end" of the

fuel cycle, include (1) mining, (2) milling, (3) conversion to uranium hexafluoride, (4) enrichment, and (5) fuel fabrication.

MINING

The fuel cycle begins when miners extract uranium ore from the earth. Typically, uranium accounts for less than one percent of the ore; the rest is waste rock. Providing fuel for a large nuclear reactor for one year can require mining of up to 450 million pounds of ore.

MILLING

Following mining, the ore is transported to a uranium mill, which is usually located close to the mines. At the mill, the ore is treated with chemicals to extract uranium oxide (U₃O₈) concentrate from the waste rock and produce a yellowish powder known as "yellowcake."

Approximately 70-90 percent of the milled yellowcake is U₃O₈ — a significant increase from the uranium concentration of less than one percent found in ore. The U₃O₈ contains three isotopes, or different atomic forms, of uranium: U-234, U-235, and U-238. Only the U-235 isotope is useful for providing the sustained nuclear fission needed to create energy in a commercial power reactor. However, the U-235 isotope is very rare; it accounts for less than one percent of the uranium in the yellowcake. More than 99 percent of the uranium is U-238.

CONVERSION TO UF₆

Before the uranium can be used in a nuclear reactor, the percentage of U-235 iso-

topes must be increased, and the percentage of U-238 must be decreased. To prepare the uranium for this step (the enrichment process), the U₃O₈, in the yellowcake must be converted into a different chemical form. Thus, the yellowcake from the mill is sent to a fuel-conversion facility. Through a number of chemical transformations, the fuel converter produces uranium hexafluoride, or UF₆, — the form in which the uranium arrives at the gaseous diffusion plants.

ENRICHMENT

UF₆, which is a white solid at room temperature and at atmospheric pressure, becomes a colorless gas when heated to temperatures greater than 135° F. The fuel converter ships UF₆, to the enrichment plants in cylinders as a solid. At the plants, the UF₆ is heated to form a gas, and the gaseous diffusion enrichment process begins. The gas is forced through a succession of barriers with microscopic openings. Because UF₆ molecules containing U-235 isotopes are lighter in atomic weight than those containing U-238, the U-235 molecules pass through the barriers more rapidly. As the gas moves through the barriers, its U-235 content increases, and its U-238 content decreases.

Most customer orders require the plants to create an enriched product containing two to five percent of the U-235 isotope. Once this level of enrichment has been achieved, the uranium is ready to be fabricated into reactor fuel. The enrichment step increases the market value of the uranium

significantly. For example, two 10-ton cylinders of UF₆, provided by a customer as feed to the plants might have a market value of \$340,000. But the 2.5-ton product cylinder containing the three percent U-235 product created from that feed could have a market value of \$1.3 million—four times that of the UF₆ before enrichment. Of all the steps in the fuel cycle, enrichment creates the greatest increase in the value of uranium.

FUEL FABRICATION

From the enrichment plant, UF₆ is shipped to a fuel fabricator such as General Electric or Westinghouse. There, the UF₆ is converted into uranium dioxide (UO₂) and fabricated into ceramic pellets that can withstand the high temperatures created within a nuclear reactor. Although these pellets are only slightly longer than 1/2", each contains almost the same amount of energy as a ton of coal. The fabricator loads the pellets into fuel rods, which are positioned within a fuel assembly.

The completed fuel assembly is shipped to the end customer — an electric utility that uses the assembly in a nuclear reactor to generate power for its own customers. As part of the DOE Uranium Enrichment Enterprise, you play an important role in supplying nuclear fuel for 59 utilities in 11 different countries. Ultimately, millions of people around the world rely on the people of the Paducah and Portsmouth plants for electricity at work and home.

Next- Who are our customers?

New committee will offer environmental advice

A newly-formed Environment, Safety and Health Advisory Committee (ESHAC) will provide Secretary of Energy James D. Watkins and Dr. Paul L. Ziemer, Assistant Secretary for Environment, Safety and Health, with independent advice and guidance regarding Environment, Safety and Health (ES&H) issues as they relate to DOE and its facilities.

Members of the ESHAC are several distinguished representatives of the environmental, worker safety, and public and occupational health communities.

"Admiral Watkins and I believe that outside counsel from recognized leaders in a given field is not only appropriate, but is essential to successfully carrying out our mission as public servants," said Dr. Ziemer. "I look forward to working with the committee members and gaining some fresh insight regarding how we can do an even better job in ES&H at DOE. This committee will help me immensely in the decision making process."

The ESHAC was developed, in part, as a result of a recommendation made in a report to Admiral Watkins by the Secretar-

ial Panel for the Evaluation of Epidemiologic Research Activities (SPEERA) for DOE, a special panel convened by Admiral Watkins to recommend appropriate actions necessary to restructure DOE's epidemiologic research program. The SPEERA report encouraged the establishment of a committee such as ESHAC to help establish and monitor priorities for the Department's environment, safety, and health programs.

The ESHAC is chaired by Kristine M. Gebbie, Secretary of Health for Washington State. She also chaired SPEERA.

"Not only is Mrs. Gebbie one of the most respected individuals in the public health profession, but also her experience with SPEERA will enable her to provide essential continuity as we embark on this new phase of ES&H activities within DOE," Ziemer said.

There are 13 ESHAC members, appointed for terms of up to three years. The committee will meet at least three times each year. The committee may also form sub-panels to examine specific issues as deemed necessary by Ziemer or Gebbie.

In addition to Gebbie, committee mem-

bers are as follows: David Adcock, MD, MPH, Chairman, Department of Radiation School of Medicine, University of South Carolina; Garry D. Brewer, Ph.D., Dean & Professor of Resource Policy, School of Natural Resources University of Michigan; Patricia A. Buffler, Ph.D., Office of the Dean, School of Public Health, University of California; Thomas M. Hellman, Ph.D., Vice President, Environmental Affairs, Occupational Health & Safety, Bristol-Myers Squibb Company; Jim E. Lapping, Director, Office of Safety and Health Building and Construction Trades Department, AFL-CIO; Jeffrey S. Lee, Ph.D., CIH, Rocky Mountain Center for Occupational and Environmental Medicine, University of Utah; Ellen J. Mangione, M.D., M.P.H., Colorado Department of Health, Division of Disease Control and Environmental Epidemiology; Thomas L. McCall, Jr., Acting Deputy Assistant Administrator for Federal Facilities Enforcement, Environmental Protection Agency; Alan McMillan, Deputy Assistant Secretary for Occupational Safety and Health Administration, U.S. Department of Labor; Rear

Admiral J. Donald Millar, Director, National Institute for Occupational Safety and Health, Centers for Disease Control; John W. Poston, Ph.D., Head, Department of Nuclear Engineering, Texas A&M University; Sheldon Samuels, Director of Safety, Health and Environment, Industrial Union Department (AFL-CIO), Workplace Health Fund.

DOE personnel working with the committee include Robert F. Mathias, Deputy Assistant Secretary, Office of Planning & Administration; and Lisa Kardell, Staff Assistant, Office of Planning & Administration, both of the Office of Environment, Safety & Health.



The Bloodmobile will be at the X-102 Cafeteria on the following dates:

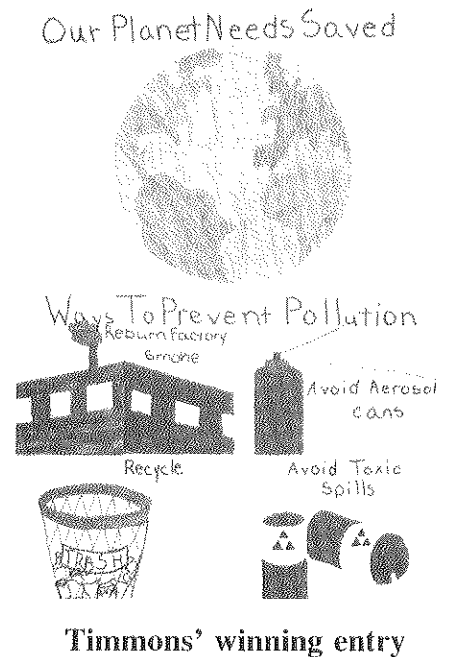
June 1 — 11 AM to 5 PM

June 2 — 7 AM to 1 PM

Donors are needed.

Katie Timmons wins poster contest

Plant employees celebrate Earth Day awareness



Earth Day awareness activities at Portsmouth during the month of April started with an Earth Day Poster Contest in which children of Energy Systems employees participated. The posters were displayed in the X-102 Cafeteria and voted on by plant employees.

Katie Timmons, daughter of Gary Timmons (D-413), captured the most votes for the best poster. (See illustration.) She won a U.S. Savings Bond, and her poster was displayed on all plant bulletin boards.

Other children who participated won U.S. Savings Bonds as well. They included Emily and Ben Allen, children of Steve Allen (D-728); Derick Adams, son of Richard Adams (D-461); Bryan Timmons, son of Gary Timmons (D-413); Drew and Laura Clausing, children of Tom (D-812) and Mimi (D-742) Clausing; Jonathan and Jennifer Buckler, children of Carla Buckler (D-452); Vanitee and Royal Gentry, daughters of Darcel Gentry (D-321); Andrew Foster, son of Roger Foster (D-533); Zachary Trimble, son of Nev Trimble

(D-611) and Ashley Townsend, daughter of Jim Townsend (D-632).

Another Earth Day celebration included a "Cantest" in which employees were asked to guess how many aluminum beverage cans could fit into a recycling bin (which was provided for the contest in the X-102 Cafeteria). The winner was Nathaniel Evans (D-743) who guessed 265. The actual number was 263. He received a U.S. Savings Bond for his winning guess.

Earth Day awareness activities continued with a presentation by Craig Butler of the Pollution Prevention Section of the Ohio Environmental Protection Agency (EPA), Division of Hazardous Waste. Conducted in the X-1000 Cafeteria Conference Room, Butler's presentation focused on Ohio EPA's perspectives on industrial pollution prevention. Butler covered topics such as waste minimization, attitude toward pollution prevention, history of pollution control, and pollution prevention legislation.



Obituaries

Zach G. Phillips, 76, Portsmouth, March 31. Phillips was a Maintenance Foreman (D-726) at retirement in May 1980. Survivors include his wife, Irene.

Jesse Wheeler, 76, Portsmouth, April 9. Wheeler was a Boiler Operator (D-856) at retirement in February 1982. Survivors include his wife, Helen.

Richard M. Hufty, 71, Orlando, Florida, April 16. Hufty was a Section Head in Engineering (D-568) at retirement in August 1985. Survivors include his wife, Emma.

New Employees

April 6

Timothy P. Kielmar, Materials Sampling & Testing (D-511).

Sandra L. Eting, Environmental Control (D-103).

April 13

Cheryl R. Finley, Waste Management (D-450).

April 20

Karen S. Queen, Medical Services (D-111).

Rebecca C. Irwin, Health Physics (D-102).

Margaret S. Phipps, Enrichment Planning and Analysis (D-534).

April 27

Jodi M. Burgess, Operations Training (D-226).

Christopher L. Warner, Planning and Engineering Support (D-452).

Employees can submit complaints to Ethics Office anonymously

The Martin Marietta Corporate Ethics Office has instituted a system of assigning four-digit identification numbers to persons who submit ethics complaints anonymously.

The system protects the anonymity of the caller while providing a means for him or her to find out the status of the investigation and its final outcome.

Assigning numbers to the callers will help office staff find information quickly when the complainant calls for an update.

The Energy Systems Ethics officer is Nancy Norton (4-4021). Ethics Hotline telephone numbers are listed in every issue of *Energy Systems at Portsmouth*.

The Martin Marietta Ethics Office is in

Orlando, Florida. Employees may register complaints by calling 1-800-3-ETHICS (1-800-338-4427). Written complaints should be addressed to P.O. Box 616234, Orlando, Florida 32861-6234.

Wayne McLaughlin, Director of Human Resources, is the Portsmouth Plant Ethics Officer. His extension is 2554.

New Arrivals

Son, Cody Christian, April 8, to Mark (D-712) and Cheryl (D-742) Rader.

Daughter, Aubrey Lynn, April 12, to Denny and Susan (D-551) Lemaster.

Ethics Hotline

To report possible wrongdoing or to obtain clarification on ethical matters, contact your Ethics Representative at extension 2554 or call the Corporate Ethics Office at (407) 356-9400.

In addition, the Martin Marietta Corporate Ethics Office has a 24-hour toll-free number: 1-800-3-ETHICS (1-800-338-4427).

MARTIN MARIETTA

Energy Systems at Portsmouth

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SERVICE MILESTONES

May 1992

30 years — Robert E. Munn.

20 years — Sue A. Case.

15 years — John J. Groves, Gary S. Doerr, Romie S. Langford, Gary K. Kelley, David P. Coll, James C. Hamilton, Charles A. Diamond, Eldon L. Williamson, Phyllis I. Saxton, Cynthia M. Quillen, Arvin L. Sager, Philip R. Balzer, David R. Hayden, George T. Bays, Jr., and Bernard T. Sexton.

10 years — Danny B. Burchette, Rhonda K. Foster, Margaret J. Sheets, Mark C. Hamilton, and Edwin L. Simpson.

5 years — Robert R. Kennard and Joseph R. Woloschek.

Norma L. Roe, Lucasville, Sr. Clerical Assistant (D-111), after 12 years.

Edward E. Wagner, Jr., Chillicothe, Maintenance Planner (D-742), after more than 37 years.

Eugene E. Wilburn, McDermott, General Supervisor, Maintenance (D-701), after more than 37 years.

Jack Lang, Piketon, Research Staff Member II (D-510), after more than 35 years.

Paul G. Crabtree, Waverly, Electrician I/C (D-711), after 12 years.

William C. Simmering, South Webster, Maintenance Mechanic I/C (D-724), after more than 16 years.

Thomas Maggard, Waverly, Supervisor, Health Physics (D-102), after 38 years.

Comanche Peak nears completion

Construction of U.S. nuclear plants accelerates

In the spring of 1992, engineers will begin testing the Comanche Peak Steam Electric Station, ending 16 years of construction and signalling the transition from one era of nuclear power to the next.

Comanche Peak, located in Somervell County, Texas, will be the newest of 112 nuclear power plants when it goes on line in early 1993. It will present the best engineering and technology accumulated in the 35 years since the first nuclear plant in Shippingport, Pa., began operation.

It is also likely to be the newest plant until the mid-1990s, when the Tennessee Valley Authority hopes to bring a nuclear unit on-line.

Even as construction on Comanche Peak is being completed, work on nuclear power's future is accelerating.

"Future nuclear power plants will be built in a new way," said Phillip Bayne, president of the U.S. Council for Energy Awareness (USCEA). "By the time the next plant is ordered, not only will our technology be refined, but the way plants are built and licensed will also have advanced.

"New nuclear plants will be built in 'families' of standard designs for lower cost, and important safety and technical issues will be settled before construction begins," Bayne added.

At the end of 1991, Comanche Peak was one of eight unfinished nuclear plants around the country, and it will be the first of these completed in the next two years. In the meantime, investments in today's plants are paying off in new levels of safety and performance that will be the foundation for the industry's future.

"A snapshot of commercial nuclear power shows an industry that's preparing for the future by building on today's achievements," said Sherwood H. Smith Jr., chairman of the Nuclear Power Oversight Committee (NPOC), the industry's highest policy organization.

"Nuclear energy ranks second only to coal in generating America's electricity, and it produces more power than gas-fired plants and hydroelectric dams combined," added Smith, who is also chairman, president and chief executive officer of Carolina Power & Light Co. "It's the only large-scale electricity source America can turn to in the 1990s that doesn't produce greenhouse gases or other types of air pollution."

As the U.S. enters its 35th year of generating electricity with the atom, Americans see a future powered by more nuclear energy.

Today, America generates nearly 22 percent of its power with nuclear energy — enough for more than 60 million households. The U.S. leads the world in producing electricity with nuclear power and generates about one-fourth of all nuclear electricity worldwide. America ranks 15th

among the 25 nuclear countries in the percent of total electricity generated from the atom.

France leads the world, producing almost 75 percent of its electricity with nuclear power.

With more than a quarter of its electricity already coming from nuclear energy, competitive but resource-poor Japan is expanding its nuclear capacity further by building the first advanced nuclear power plants.

And Japan is using the latest U.S. nuclear technology.

President Bush believes the time is right to move ahead on nuclear power. "We've got to accelerate our research efforts to keep America on the cutting edge of new energy technologies like alternative fuels, electric cars, high-speed rail, solar and geothermal, and safer and more secure nuclear technology."

Today, "pro-environment" more often means "pro-nuke."

"I am a strong proponent of nuclear energy," said John Sawhill, president of the Nature Conservancy and former head of the Federal Energy Administration. "I think we should be talking about what we can do to revive it — as one of the solutions to a lot of the pollution we see."

There are good reasons for linking nuclear power with environmental quality. In 1991, America's nuclear plants:

- Cut utility emissions of carbon dioxide — the main "greenhouse" gas — by 20 percent;
- Reduced sulfur oxides suspected of causing acid rain, by 5 million tons; and
- Lowered nitrogen oxides that contribute to smog, by 2 million tons.

Even some traditional "anti-nukes" are leaving the door open to nuclear power's future development.

Although critical of today's plants, World Resources Institute President James Speth says, "I'd like to see advanced reactors developed and put on the marketplace."

RECORD PERFORMANCE

No one knows better than the industry that the performance of today's plants is a stepping stone to nuclear power's future.

As 1991 drew to a close, U.S. nuclear plants were approaching what promised to be their best year ever in production and efficiency.

U.S. nuclear plants generated nearly 490 billion kilowatt-hours in the first nine months of 1991 — 6.4 percent more than the same period in 1990. Plant efficiency for the first nine months of 1991 — as measured by average capacity factor—increased to 70.3 percent from 66.1 percent in the same period of 1990.

BUILDING NEW PLANTS

At the same time that the nuclear industry continued to improve the performance of today's plants, momentum grew in 1991 toward orders for advanced plants to help meet the need for more — and cleaner — electricity.

"America's need for reliable electricity supplies and a cleaner environment won't stop growing," said NPOC's Smith. "Americans are counting on nuclear power as the fuel of the future. We believe we should prepare to order and start building new nuclear plants in the next several years so that they'll be available when they're needed."

One year after unveiling its "Strategic Plan for Building New Nuclear Power Plants" — its blueprint for creating the conditions for new plant orders — the industry has recorded tangible progress. Highlights include:

- A major industry commitment to standardizing designs and operations of advanced nuclear plants. Building and operating future plants based on several "families" of designs will help reduce costs and cut construction schedules. Standardization also means that utilities can share more plant maintenance and training programs among similar nuclear plants.
- A new level of public acceptance. A nationwide Gallup poll found that 73 percent of Americans think that nuclear energy should play an important role in meeting future energy needs. Awareness of nuclear power's environmental benefits also ran high: Nearly 65 percent of Americans know that nuclear power cuts greenhouse gas emissions and air pollution.
- Progress in studying Yucca Mountain, Nev., as a possible site for permanently storing nuclear waste. In 1991, the courts repeatedly upheld the Department of Energy's (DOE) right to study Yucca Mountain. Congressional committees also passed legislation to allow DOE to continue scientific studies of the potential site.
- Approval of a national energy policy bill by the Senate Energy Committee that reflected President Bush's proposals for a more stable process for licensing new nuclear plants. Just as important, the bill would have given the public a more effective voice in licensing decisions before plants are built, not after.

The energy bill wasn't considered by the full Senate, but USCEA's Bayne remains hopeful Congress will reform the way nuclear power plants are licensed.

- Initial work on identifying potential sites for advanced nuclear plants. Sub-

sidaries of three large utilities — Commonwealth Edison Co., The Southern Co. and Public Service Electric & Gas Co. — signed an agreement with the Department of Energy to demonstrate the Nuclear Regulatory Commission's (NRC) new early site permit regulations.

That work could lead to the identification of a specific potential plant site — or sites — by the first quarter of 1993.

But the industry also saw disappointments as it prepares for future plants. Many involve the lack of agreement with the NRC on plant-design issues. Perhaps the most troubling was the major delay in the NRC's schedule for reviewing and certifying designs for advanced nuclear power plants.

Even with the NRC's delay, the industry moved forward to do its part to make sure that designs for advanced nuclear plants will be ready when America needs them.

By late 1991, a group of nuclear utilities had pledged \$50 million to fund the industry's share of a joint program with DOE to develop "first-of-a-kind" engineering for advanced standardized light-water nuclear plants.

"First-of-a-kind engineering will be a significant step toward commercial standardization of advanced plants," said USCEA's Bayne. "It will translate the conceptual design that the NRC needs for certification into engineering that can be used to buy equipment and build a plant. It will give utilities the information they need to project a reliable schedule and cost estimate for building an advanced nuclear power plant."

PICKING UP THE PACE

With the start-up work of the industry's Strategic Plan completed, Bayne expects that 1992 will hold new advances in creating the conditions for new plant orders.

"The industry's future begins with our fundamental commitment to operating today's plants at the highest standards of safety and efficiency," he said. "At the same time, we'll continue to work on building the technical, governmental and public awareness framework that's needed before new plants can be ordered."

Bayne also believes that America's growing electricity needs and greater environmental concerns make it more important to plan for future nuclear power plants.

"We don't know what restrictions might be placed on burning fossil fuel to generate electricity, and we don't know how much more we can increase our energy efficiency. But we know that America will need more — and cleaner — electricity for a strong economy and our growing population," he said. "With these trends facing the country, it would be unwise not to plan for the advanced nuclear power plants we'll need."

Hortel uses design talents to help out area churches

By John Christian

John Hortel's imagination has spread all over southern Ohio. His abstract ideas have become more than just concrete: they're now permanent fixtures of the religious community.

During the day, Hortel serves the plant as Department Head, Civil Engineering. However, outside the job, he is a different kind of specialist. Hortel uses his talents to design churches: bits and pieces — or whole buildings — depending upon the request.

While most people talk about stained-glass windows and mahogany altars, Hortel talks of steel design, concrete and timber.

The husband and father of three says designing churches just evolved. One day, after he had worked at the plant for about a year, a friend of a friend asked him to write specifics for a design. His first customer liked the work so much that he paid Hortel more than the asking price.

Just a few days later, Hortel received a phone call from a pastor of a local church. "He wondered if I'd be interested in doing the plans for it." From then on, jobs just kept coming in.

One of the first churches Hortel designed, The Good Shepherd in Jackson, stands as a living monument to his abilities.

He says he prayed about it and "came to the place where I wanted to do it." He finished the project around the same time his first child, a son, was born.

Hortel says he doesn't do it for the money.

"I'm like the old country doctor. If I sense that a church doesn't have much, I don't charge. And then, there are some churches that say just charge us the usual fees — I'm not extravagant."

Not all of his work is large scale. At the

John Hortel poses in front of one of his recent designs, Union Hill Church, located in Adams County.



Grace United Methodist Church in Waverly, Hortel designed a Lift-o-vator, an elevator for wheelchair-bound worshippers. Another aspect of his work involves checking minute details on plans to make sure they comply with state requirements.

"A fellow who's a designer or drafter will do site plans, and he'll need someone to certify them," Hortel said.

Hortel does not brag about his efforts.

"Sometimes I can only help in a small way," he said.

But, he attributes his involvement to his duties as a Christian.

"With the churches, sometimes they don't have someone they can go to. If they go to a design or architectural firm, it's pretty expensive."

He says he sees this as an effective ministry. "It really fills an area that needs to be addressed."

It's all a matter of channeling requests

in the right direction. He has turned down lucrative offers to accept assignments from those churches he felt may be more in need.

A 1970 graduate of Ohio Northern University, the Chillicothe resident is a Professional Engineer registered in the State of Ohio. He came to the plant in 1977.

Since then, he has progressed through the

ranks from Section Head, overseeing Mechanical and Civil Engineers, designers and draftsmen, to his current role as Department Head, Civil Engineering.

Hortel is also actively involved in the YMCA. In addition, he has served as president, secretary and treasurer for the local chapter of Gideons.

RECREATION CORNER

FOREMEN'S CLUB

Passes for the Memorial Golf Tournament June 1-7 in Dublin are available through the Foremen's Club. Contact John Thompson, extension 3498, for additional information.

EMPLOYEE ACTIVITIES COMMITTEE

Portsmouth will be holding its first Long's Retreat Fun Day on Saturday, June 6. This event is limited to Portsmouth employees, spouses, dependent children, retirees and grandchildren. They can participate in the following: free admission, all-day free water slide rides, free door prizes, free admission to the beach, free miniature golf, free bingo with great prizes — including children's games and prizes — and free pop. (Go-carts, canoes, and paddle boats are available at a nominal charge.) In addition, children can have their picture taken free with a number of costumed characters.

The schedule for the day is as follows:

8:00 AM — Gates open (They will close at dusk.)

9:00 AM — Horseshoe Tournament

9:45 AM — 1-Mile Fun Run

10:00 AM — 3-Mile Scenic Walk

11:00 AM-Noon — Children's Games

11:00 AM-Noon — Bingo (Adults)

Noon — Massive charcoal grill available near the largest shelter house

Softball fields, volleyball courts, tennis courts, a basketball court and horseshoe courts will be available at no additional cost until nightfall. Softballs, bats, basketballs, volleyballs, and horseshoes will also be on hand.

Hundreds of camping spots and several cabins are also available if employees want to make a weekend of this outing.

For more information, contact Judy Vollrath at extension 6477 or John Gedeon at extension 3878.

AEROBICS CLASS

An aerobics class is being conducted at the XT-801 Building each Monday and Wednesday from 4:45 PM to 5:45 PM. Included in this class will be the use of "exercise steps" and light hand weights. All Portsmouth employees and their spouses are invited to attend free of charge. Anyone wishing to participate should wear comfortable clothes and shoes and bring a mat for floor routines. For more information, contact Judy Vollrath at extension 6477.

Plant Communications Survey

(Continued from Page 1)

impact of organizational programs, getting input to help with future decisions, pinpointing areas of concern, keeping tabs on long-term trends and improving the working environment.

Energy Systems began the Employee Communication Survey effort in 1986 with a second survey taking place in 1989 in which the Portsmouth plant participated for the first time. Each site is required to survey its employees on a three-year cycle with some of the questions on the survey allowing for comparison of Energy Systems with other major U.S. companies such as IBM, AT&T and Proctor & Gamble.

Coriell points out that confidentiality is a major aspect of the survey as all employees will participate anonymously. In fact, she notes, efforts are made to prevent indi-

vidual identification. Survey data is actually processed by an outside vendor and tallied into departments or divisions; however, no reports will be generated for a department with less than eight responses to a survey so that no one individual can be pinpointed.

Topics of the survey include benefits; environmental, safety and health; ethics and values; organization; site-specific issues; supervision; Total Quality Management and work itself.

The results of the survey will be published in Energy Systems at Portsmouth, and divisional/departmental reports will be provided to managers with the expectation that they will discuss the results with their employees. The goal of the survey is to receive participation from employees of all levels in the planning of actions to address the major issues.

Bonds Drive gets under way

The Energy Systems Savings Bond Campaign Drive began April 22 with kick-off "Apple Pie" celebrations held in the X-102 Cafeteria. In the first of the two patriotic celebrations in the afternoon, some Portsmouth personnel became pie-throwing victims. They were Steve Pullins, Maintenance Division Manager and Chairman of the bonds campaign; Dan Hupp, Protective Forces Chief; Bob Bush, Business Services Division Manager; and Wayne McLaughlin, Director of Human Resources. Bill Pyles (D-803) won a \$50 Savings Bond.

Bill Strunk, Department Superintendent of Design Engineering, doubled as emcee for the event along with Pullins. Sidney West (D-347) and Jim Williams (D-554) sang solos, Clare Welch (D-452) and Polly Mingus (D-413) entertained at the piano, and Bill Flanagan (D-911) charmed the packed cafeteria with his humor. Howard Gabe, U.S. Treasury Representative, was on hand as well.

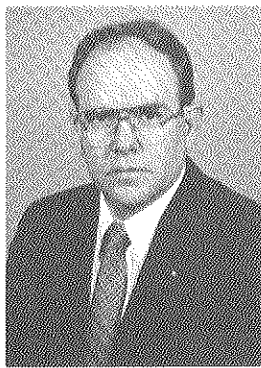
Steve Pullins took another pie in the face at the evening celebration as did Guard Vern Speakman. Clare Welch again entertained at the piano, and Steve Dekanich, Energy Systems Savings Bond Coordinator, gave a "pep talk" on the personal benefits of owning Savings Bonds. Bill Strunk and Steve Pullins again served as emcees.

Another aspect of the campaign drive involved an Energy Systems Savings Bond poster contest in which children of Portsmouth employees participated. They included Erica and Jennifer Hutchinson, daughters of Dawn Hutchinson (D-321); Zachary Trimble, son of Nev Trimble (D-611); Sarah Christian, daughter of John Christian (D-022); Adam and Andrew Foster, sons of Roger Foster (D-533); Jessica Davis, daughter of Kerry Davis (D-224); Brian Dulin, son of Clyde Dulin (D-102); Wendi Fannin, daughter of Gary (D-451) and Shannon (D-353) Coriell; Connie Fazio, son of Garry Hager (D-911); Steve Johnson, son of Bill (D-541) and Jane (D-223) Johnson; Christina Teeters, daughter of Brad Teeters (D-612); Susanna Harley, daughter of Charles Harley (D-520); and Drew and Laura Clausing, children of Tom (D-812) and Mimi (D-742) Clausing.

The grand prize winner of the poster contest was Julie Longmire, daughter of Gary T. Longmire of the Maintenance Division at K-25. She won a \$200 U.S. Savings Bond.

The campaign runs through May.

Ralph Nolji draws the name of the next pie-thrower (above) as Bill Strunk and Polly Mingus look on. Dan Hupp recovers from a pie-in-the-face by Connie Eckhart (below).



Hortel



Tomko

Hortel to serve as department head in charge of Civil Engineering

John M. Hortel has been named Department Head, Civil Engineering. He reports to Bill Strunk, Department Superintendent, Design Engineering.

Hortel came to the Portsmouth plant in January 1977 as a Construction Engineer. He was named Section Head, Gas Centrifuge Enrichment Plant (GCEP) Maintenance Engineering in March 1981. In September 1984, he was appointed Senior Engineer in Start-Up Implementation, and in August 1985, he became a Senior En-

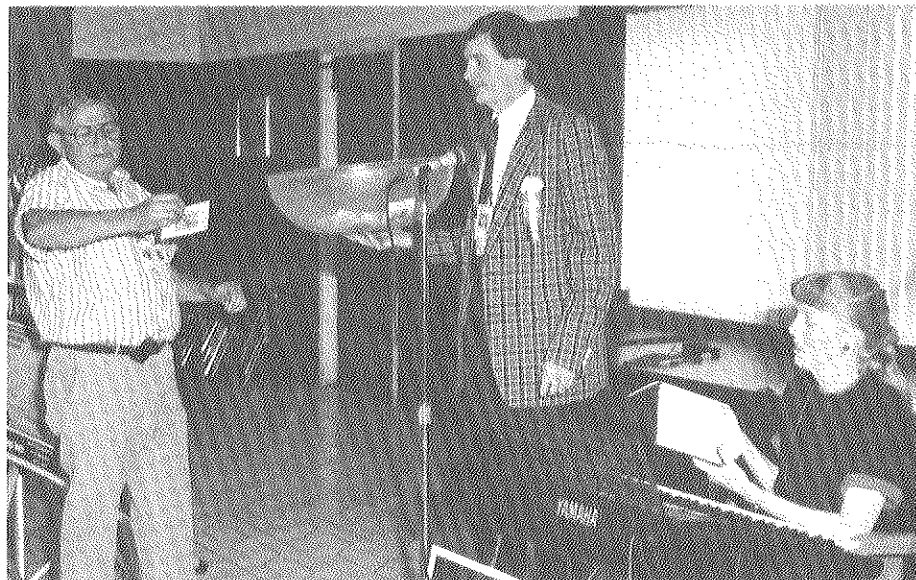
gineer for Civil Engineering.

Before his promotion, he had served as an Engineering Specialist in Civil Engineering since May 1991.

Hortel was graduated from Ohio Northern University in 1970 with a bachelor of science degree in civil engineering.

He is a Registered Professional Engineer in the state of Ohio and serves as an active member of The Gideons International.

He and his wife, Judy, have three children and live in Chillicothe.



Tomko named department head

Kenneth M. Tomko has been named Department Head, Environmental Control. He reports to C. W. "Buck" Sheward, Manager, ES&H Division.

Tomko came to the Portsmouth plant in September 1968 as a member of the Technical Training Squad. In December 1968, he became a staff engineer in Mechanical Development for Process Equipment Technology. In February 1974, he moved to Engineering and Maintenance as a staff engineer. He was promoted to Senior Engineer of Maintenance Engineering in November 1975.

In October 1977, he was promoted to Department Head, Maintenance Engineering and Services. He transferred to Department Head, Gas Centrifuge Enrichment Plant (GCEP) Maintenance in January 1981. In August 1984, he became Department Head, GCEP Engineering.

He became Department Head, Shops and Utilities Maintenance, in July 1985. In April 1989, he was appointed Department Head, Production.

Tomko was graduated from Youngstown State University in 1968 with a bachelor's degree in mechanical engineering. In 1971, he earned a master of science degree in industrial and systems engineering.

He and his wife, Sharon, have two children and live in Chillicothe.

Hotline Reminder

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

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