USEC

MARTIN MARIETTA

Uranium Enrichment News

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USEC signs agreement to purchase Russian HEU

On Friday, January, 14, the United States Enrichment Corporation (USEC) signed a historic contract with the Russian Federation providing for American purchase of uranium from nuclear warheads for use in commercial electricity production. This signing was concurrent with the signing of the U.S.-Russia-Ukraine nuclear disarmament agreement. USEC will market the material to nuclear power utilities world-wide, ensuring that it will be used for peaceful purposes, and recouping costs associated with nuclear disarmament. Highly Enriched Uranium (HEU) will be removed from nuclear warheads and converted to Low Enriched Uranium (LEU) suitable for commercial power reactor fuel. Once HEU is converted to LEU, it can no longer be used in nuclear weapons.

USEC Transition Manager William H. Timbers, Jr. highlighted the significance of the contract stating, "USEC is pleased to be an integral part of a vital and historic U.S. Administration initiative to promote greater world security by turning swords into plowshares and by providing resources that will support economic reform in the former Soviet Union."

Under terms of the contract, USEC will purchase 500 metric tons of HEU extracted from nuclear weapons dismantled in Russia over the next 20 years--10 metric tons in each of the first five years and 30 metric tons each year thereafter for the remainder of the 20 years. The entire transaction is valued at approximately $12 billion. This LEU will be gradually phased into USEC's supply mix for sale in the world-wide enrichment market. As the world's largest supplier of uranium enrichment services, USEC is uniquely qualified to manage the disposition of LEU derived from HEU taken out of nuclear weapons dismantled in Russia in a manner that minimizes market impacts while assuring reliability of supply and quality of product.

On January 14, USEC signed a contract to purchase Highly Enriched Uranium from nuclear weapons dismantled in Russia. The signing took place at the Russian Federation Ministry of Atomic Energy in Moscow. Seated at the table left to right are Albert A. Shishkin, President, Techsnabexport, Co. Ltd.; William H. (Nick) Timbers, Jr., USEC Transition Manager; and Alexi A. Grigorien, Director, UKANSERUIS.

First shipment of LEU arrives

In December, the United States Enrichment Corporation (USEC) received its first shipment of commercial grade, Low Enriched Uranium (LEU) from Russia. A portion of the 155 metric tons of LEU purchased from the Russian Federation arrived at the Portsmouth plant on December 13 and 14.

The LEU transaction served as a precursor to the larger historic agreement between the United States and the Russian Federation providing for the U.S. to purchase LEU converted from weapons grade, Highly Enriched Uranium (HEU) contained in dismantled Russian nuclear warheads.

"This represents the first step in a historic and evolutionary cooperative business arrangement with Russia for the supply of nuclear fuel to meet the world's energy needs," said William H. (Nick) Timbers Jr., USEC's Transition Manager. "This delivery of LEU paves the way to effectively utilize HEU from nuclear weapons in Russia for peaceful, commercial use."

The $115 million commercial transaction between the U.S. and the Russian Federation for stockpiled LEU is a provision outlined in a suspension agreement signed in October 1992 by the two countries. The suspension agreement evolved from an antidumping petition initiated by U.S. uranium miners who saw sales in the U.S. uranium market falling due to unfair trade practices by six republics of the Russian Federation. It includes several provisions that ensure U.S. uranium prices will return to fair and competitive levels. As specified in the suspension agreement, the U.S. will receive three additional shipments of Russian LEU, and has the option to buy 50 additional metric tons of the material sometime next year.

In this issue...

Facts about the agreement

The United States Enrichment Corporation (USEC) is the U.S. Executive Agent designated to enter into a contract with the Russian Federation to purchase uranium recovered from dismantled nuclear weapons for use in commercial electricity production.

Highly Enriched Uranium (HEU) extracted from Russian and Ukrainian nuclear warheads will be converted to Low Enriched Uranium (LEU) suitable for commercial power reactor fuel. Once HEU is transformed into LEU, it becomes useless for nuclear weapons. By purchasing LEU derived from Russian HEU, the U.S. can ensure that the weapons material will be used solely for peaceful purposes.

- The U.S. will purchase 500 metric tons of HEU converted to 15,260 metric tons of LEU over the next 20 years:
  - 10 metric tons of HEU, equivalent to approximately 310 metric tons of LEU per year for the first five years
  - 30 metric tons of HEU, equivalent to approximately 930 metric tons of LEU each year thereafter for the remainder of the 20 years
  - Higher quantities will be delivered to the maximum extent possible.
- The purchase is valued at $11.9 billion. Bilateral review will be held annually to determine adjustment of prices in light of changes in international economic and market conditions.
- Russia will commit to use portions of the proceeds from this sale for conversion of defense enterprises, upgrading the safety of its nuclear power plants and environmental clean-up of polluted areas. Russia will compensate Ukraine for uranium from its strategic nuclear warheads by providing fuel for civilian power plants.
- Blending-down of HEU will take place in Russia before the U.S. takes ownership of the product.
- The volume of this transaction is equivalent to three years world demand for enriched uranium. The quantity purchased in the first year alone is enough fuel to service 15 reactors and provide electricity to 10 million households.

X-333 boundary is moved back

Portsmouth Plant Manager Dale Allen helps employees in the X-333 to move back that process building's Contamination Control Zone Boundary. This new boundary opened up 28 acres of floor space that was previously considered to be potentially contaminated. This improvement in radiological controls allows routine access to the Area Control Room (ACR) without personnel monitoring.

On Wednesday, January 12, the Contamination Control Zone boundary (the point at which exit monitoring is required) on the operating floor of Portsmouth's X-333 Process Building was relocated closer to the source of contamination. This represented a reduction of approximately 28 acres (1.3 million square feet) in potentially contaminated floor area.

In early November, Portsmouth began an aggressive radiological protection initiative to provide RadWorker II training in various facilities onsite, radiological characterization which consisted of numerous Health Physics surveys, and standardized radiological signs for many plant facilities. This effort was nicknamed the "Road Show" since it targeted one building for a specified amount of time before "hitting the road" to the next building. To date, through the combined efforts of the Health Physics and Training departments, more than 450 people have received RadWorker II training, and more than four million total square feet on plantsite have been surveyed.

Survey results from the operating floor of the X-333 indicated that it would be possible to push back the Contamination Control Zone Boundary. In late November 1993, the Cascade Operations division decided to attempt the relocation and assigned Dave Williams of '000' Cascade Operations and Phil Borris of Health Physics to coordinate the effort.

For two months, facility and support personnel in the X-333 worked together to prepare for boundary relocation. They decontaminated areas, painted, segregated waste, re-routed boundaries, posted equipment, identified equipment and tools for cell and operating floors, developed a facility policy, conducted training sessions, routed electrical and phone connections to Boundary Control Stations, and finally repositioned the last boundary. These enormous efforts of '000' Cascade, Safety and Health, Management Systems and Compliance, and General Plant Support people were the key to this project's success.

This improvement in X-333 operations saves time for the employees and minimizes the plant's waste generation. Moreover, it showed again what could be accomplished when many people work together. Both Dale Allen, Plant Manager, and John Knauff, President, OCAW Local 3-689, agreed that this improvement was overdue and wished to express their appreciation for a job well done.

Nickel heads winning NCS team

A Martin Marietta Energy Group five-plant Nuclear Criticality Safety (NCS) Training project team received an "Award of Excellence" at the annual DOE Training Resource and Data Exchange (TRADE) training conference in Indianapolis for its development of a high quality training program -- the "Nuclear Criticality Safety Training Program for Supervisors." The chairperson of the eight-member team, made up of nuclear criticality and training experts, was Dave Nickel of Portsmouth's Plant Training Department.

TRADE is sponsored by DOE. Rick Stachowiak, Program Manager for NCS for all five plants, commended the team for all the hard work done in developing this excellent course. Nickel described the course as "very innovative and alive." It adds games, including a jeopardy game quiz, to make it fun.

Team members also won the President's Award for Continuous Improvement in May 1993 for their accomplishments.

BASKETBALL TOURNAMENT

When: Mondays beginning February 28

What: Double elimination

Where: Good Shepherd Manor Gym

Eligible: Employees and spouses

Roster size: 15 maximum

Furnished: Referees and gym rental

Deadline to submit rosters: February 11

To submit rosters or receive additional information, contact Tournament Director Bob Mollette at ext. 2915, MS 1203, or John Gedeon at ext. 3878, MS 1132.

This program is sponsored by the Employee Activities Committee.

Obituaries

Paducah

Maurice E. Rollins,65, December 6. Rollins, the Benefit Plans Administrator, stepped down in June, 1993 in preparation for retirement. His retirement would have become official at the end of the year.

Robert L. Crutcher, 78, December 7. At the time of his retirement in January 1981, Crutcher was working in Lubrication Maintenance.

Robert C. Robertson, 90, December 18. At the time of his retirement in October 1968, Robertson was working as a Heavy Equipment Operator.

Brice C. Edwards,72, December 27. At the time of his retirement in March 1983, Edwards was working as a Maintenance Mechanic.

Portsmouth

Rayford O. Winkler, 67, Sciotoville, December 13. Winkler was a Section Head in Quality Control when he retired in July 1985. He is survived by his wife, Barbara.

William F. Byers, 67, Chillicothe, died Saturday, December 25, at Medical Center Hospital. Byers was an Operations Fire Captain at the time of his retirement in March 1988. Survivors include his wife, Phyllis.

Farnum M. Reeder Sr., 70, Shiloh, died Sunday, December 26. Reeder was a Maintenance Foreman at the time of his retirement in July 1986. He is survived by his wife, Sarah.

John A. Hyland, 70, Franklin Furnace, December 30. Hyland was a Photographer at the plant when he retired in February 1988. He is survived by his wife, Pauline.

Robert L. Allen, 75, Canal Winchester, December 31. Allen was a Laborer when he retired in December 1979. He is survived by his wife, Garnet.

Donald R. Snider, 76, Jackson, January 6. Snider was an Electrician 1/C when he retired in September 1980. Survivors include his wife, Letha.

Ewell Milton Conley, 65, Waverly, January 7. Conley was a Laborer when he retired in July 1988. Survivors include his daughter, Carolyn Kyle, who works for the Atomic Employees Credit Union office in the X-100, and her husband, John (GPS Safety, Health, and Information Management).

George H. Nichols, 69, Fairmont, W.Va; January 8. Nichols was a General Foreman when he retired in July 1989. Survivors include his wife, Marie.

Roy J. Wolfe, Jr., 81, McDermott, January 14. Wolfe was a Stationary Engineer when he retired in August 1975. He is survived by his wife, Doris.

Vernon H. Murray, 67, Maloneton, Ky., January 17. Murray was a Chemical Operator when he retired in May 1990. He is survived by his wife, Phyllis.

USEC

MARTIN MARIETTA

Uranium Enrichment News

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Hoover initiates cost savings idea

The contracts we have with our customers allow us to charge the customer for cylinder defects found within 30 days of receipt. A cylinder received from a customer with insufficient vacuum constitutes a defect, which can be corrected by pulling the cylinder down to a vacuum at the X-344 autoclaves. The charge for pulling down a cylinder is $400. In order to ensure that we never exceeded the 30-day defect discovery requirement, all customer cylinders received were vacuum-tested upon receipt.

However, recent experience had shown that very few cylinders had deficient vacuums, but we were still expending employee hours to pressure check every cylinder. In addition to UMH employee hours, cylinder cold pressure checking constitutes opening a UF6 system, which would have required full radcon precautions in what was previously a non-boundaried area.

With support from his crew and the X-344 scheduler, Dean Hoover, the X-344 Shipping & Receiving Supervisor at Portsmouth, demonstrated to his supervision that we were incurring more cost in checking pressures than we were receiving from those customers who were charged for the defects. Dean then redlined his shipping and receiving procedure and submitted it for approval. As such, the vacuum tests will no longer be performed in order to charge our customers; vacuum will be pulled when required at the autoclaves. Including proposed radcon changes to the operation, this change will save the company $80,000 per year. Appreciation goes to Dean, Larry Dingess, Bruce Dwyer, Roger Knauff, Marie Page and Mark Veach not only for identifying the problem but also for implementing a solution.

What's happening to people in UE?

Paducah

Griffin Accepts Coast Guard Award--Trent Griffin (Engineering and Technical Support), a member of the U.S. Coast Guard Reserve Unit in Paducah, recently accepted the "Award for Outstanding Achievement" from Frederico Pena, Secretary of the U.S. Department of Transportation, on behalf of the U.S. Coast Guard during a ceremony in Washington D.C. The award recognized the Coast Guard's role in flood relief work this summer.

Griffin spent 30 days on active duty during the flood relief operations. Most of his tour was spent in Olive Branch, Illinois as a member and team leader of a Disaster Response Unit. Duties included evacuation of personnel, monitoring flood conditions and assisting those who chose to wait out the flood in their home. A 20-year veteran of the Coast Guard reserve and Kentucky National Guard, Griffin said he was honored at being "chosen as a messenger to represent all the men and women of the Coast Guard and the DOT. It was a very humbling experience for me and the highlight of my military career."

Flood and McElya Earn CPS Status--Judy Flood (Electrical-Instrument Shops) and Carla McElya (Procedures System Management), each received the Certified Professional Secretary (CPS) rating in December. Earning this rating required passing a six-part exam with each part consisting of 120 questions covering Accounting, Behavioral Science in Business, Business Law, Economics & Management, Office Administration/Communication, and Office Technology.

Flood has worked for two years as a department secretary in the General Plant Support Division and is a member of the Professional Secretaries International (PSI).

McElya has worked for two and one-half years as a department secretary in the Management Systems and Compliance Division. Prior to that she spent 13 years as a secretary-bookkeeper with Teamsters Local Union No. 236.

Portsmouth

D'Aquila article appears in ANS News--Donna D'Aquila, Department Manager, Nuclear Criticality Safety, serves as the Chair of the American Nuclear Society's Nuclear Criticality Safety Division (NCSD). In the December 1993 issue of ANS News, Donna profiled the division's history, current activities and future initiatives in an article titled "Nuclear Criticality Safety Division Active in Governance and Technical Programs." The 554 members of the NCSD division are "professionals associated with the safe handling of fissionable materials outside reactors." These professionals hail mainly from universities as well as from the Department of Energy (DOE), Nuclear Regulatory Commission (NRC), DOE contractors and NRC licensees, or are consultants working for such organizations. ANS News is published monthly by the American Nuclear Society, which is headquartered in La Grange Park, Ill.

Retirees

Paducah

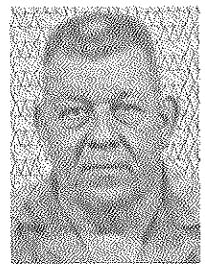
Paducah retirees meet for dinner the third Thursday of every month at 5 p.m. at the Ponderosa restaurant next to Kentucky Oaks Mall. All PGDP retirees are welcome. Call John Hornsby, 502/442-1752, for more information.

Portsmouth

Chester P. Estep, Beaver, Janitor (HEU Cascade Custodial), after more than 24 years of service.

Paul W. Yuenger, Portsmouth, Mobile Equipment Mechanic (Garage), after more than 17 years of service.

Plant retirees meet for a luncheon every third Thursday of the month at the Ramada Inn in Portsmouth at 11:30 a.m. Various personnel from plantsite serve as guest speakers, and a newsletter is distributed.



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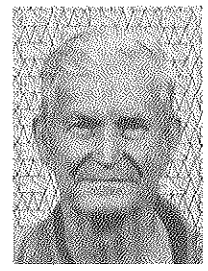
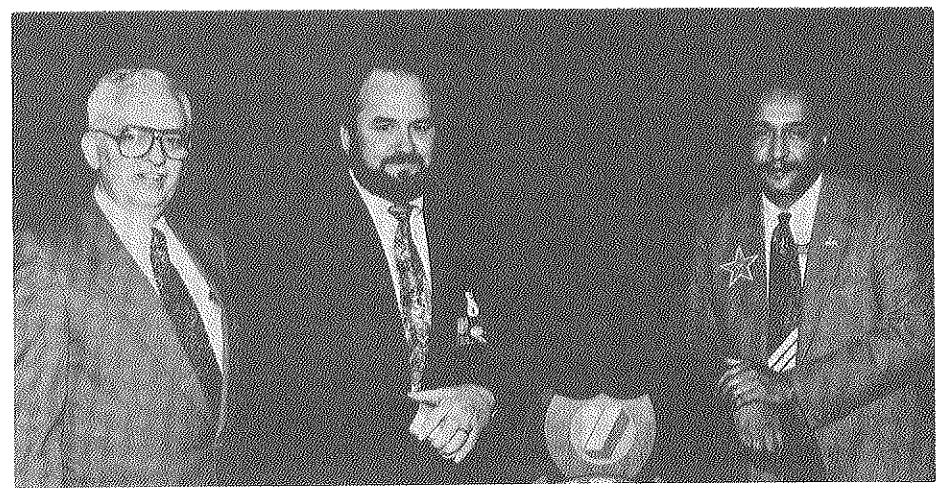


Yuenger



Larry Nelson (left) and Dennis Bowman, representatives of the Saturn Corporation, join Paducah's Values Council Chairman Ladd Mathis after speaking to the assembled Councils on the elements of Saturn's corporate culture. Nelson, formerly a United Auto Worker's Union representative, was one of the "Original 99," a team chartered by General Motors to develop the concept car we now know as the Saturn coupe. The team studied industrial facilities around the world before it designed the Saturn manufacturing plants.

Paducah hosts Values Councils

Values representatives from six Energy Group sites were in Paducah December 8-10 for the quarterly Values meeting. "Challenging a New Frontier" was the theme of the meeting that focused on the role of Values in dealing with the many changes occurring across the corporation.

This was the first time for Martin Marietta Specialty Components to participate in the meetings which have been held regularly since the Values Programs were adopted in May of 1989.

Bob Merriman, Executive Vice President, Martin Marietta Energy Systems, speaking during an introductory session, reaffirmed the company's commitment to Values. "What I seek for this company is a time when everybody practices Values," Merriman said, "Values will be so strong, that people who don't practice Values will be uncomfortable and will choose to go elsewhere."

Larry Nelson and Dennis Bowman from Saturn Corporation, spoke to the group about that company's success in using self-managed teams. They explained how each person on a team is valued for the particular expertise they provide, how top managers empower the teams to solve their own problems and find ways to reach their goals, and how Saturn has managed to encourage employees to accept that high degree of ownership. After the presentation, the speakers answered questions from the Values representatives.

Paducah Plant Manager Steve Polston delivered a keynote address titled "How Do You Know You Have Values," following dinner at the Irvin Cobb Hotel. The evening concluded with entertainment by Tom and Anita Vance. Tom works in Paducah's Health Physics Department.

During the meeting, each site reported on their activities during the quarter and reviewed the 1993 goals and objectives as a prelude to planning 1994 projects.

Paducah reported on its successful Veteran's Day reception, the Values Self-Assessment forms that have been made available to all divisions, the effort to encourage support of the March of Dimes Telethon through payroll deduction and a project to encourage use of cost saving suggestions.

Portsmouth reported on its "Gifts for Needy Children" Project, "Cans for Caring" Project, Veteran's Day Celebration with the "Wall of Honor" in the X-102 Cafeteria, and the Portsmouth Council's offsite meeting which was conducted on October 15, 1993.

A year of change for uranium enrichment in 1993

1993 was a year of change as the United States Enrichment Corporation (USEC) assumed responsibilities for supplying uranium enrichment services to American and foreign energy customers, the responsibilities formerly performed by the Department of Energy (DOE). William H. (Nick) Timbers Jr. was named Transition Manager on March 10, and he visited the Portsmouth and Paducah plants in mid-April.

The transition from DOE to USEC took place on July 1, the same day that operations and maintenance of the Paducah and Portsmouth plants shifted from Martin Marietta Energy Systems (MMES) to Marietta Utility Services (MMUS). Originally, Beth Darrough served as Portsmouth's USEC Site Director, while Jimmie Hodges held that position at Paducah. In October, Charlie Martin became USEC Site Director at Paducah, and in November, Lee Fink became Site Director at Portsmouth.

Legislation late in 1992 creating a government corporation to run the plants forever changed what had become a somewhat routine existence as part of DOE's massive complex. Charged with ushering in some new attitudes, such as "businesslike operation" and "common focus," and redefining some old ones, like "safety comes first" and "people are our best asset," USEC has brought down some of the barriers that hampered the plants during its first six months as overseer, and has its sights set on more for the year ahead.

MMUS now employs more than 4,300 people at Paducah and Portsmouth directly involved with the production of enriched uranium. Martin Marietta Energy Systems, Inc. continues to perform work for the U.S. Department of Energy at the sites related to environmental restoration and legacy waste management. Much of this year was spent forging relationships and finding ways to work together. Meanwhile, as we edge closer to a "business" environment, deadlines have grown shorter and budgets tighter. People are being challenged to find a better way, a more efficient way, to do the job. We all began to learn the important lessons associated with "bottom-line" management.

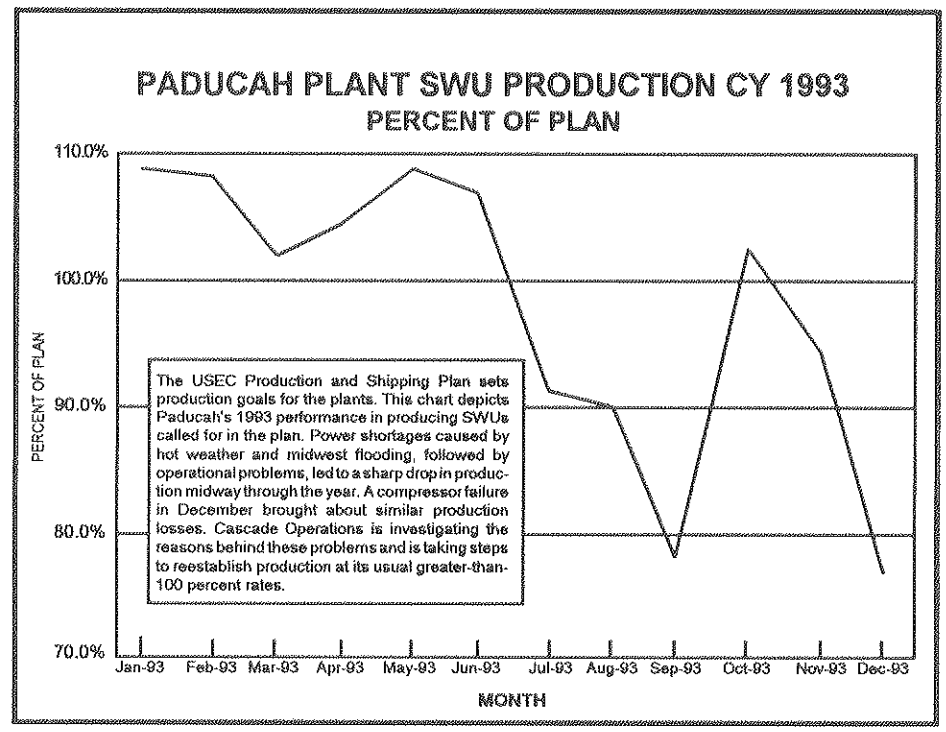
1993 Paducah Highlights

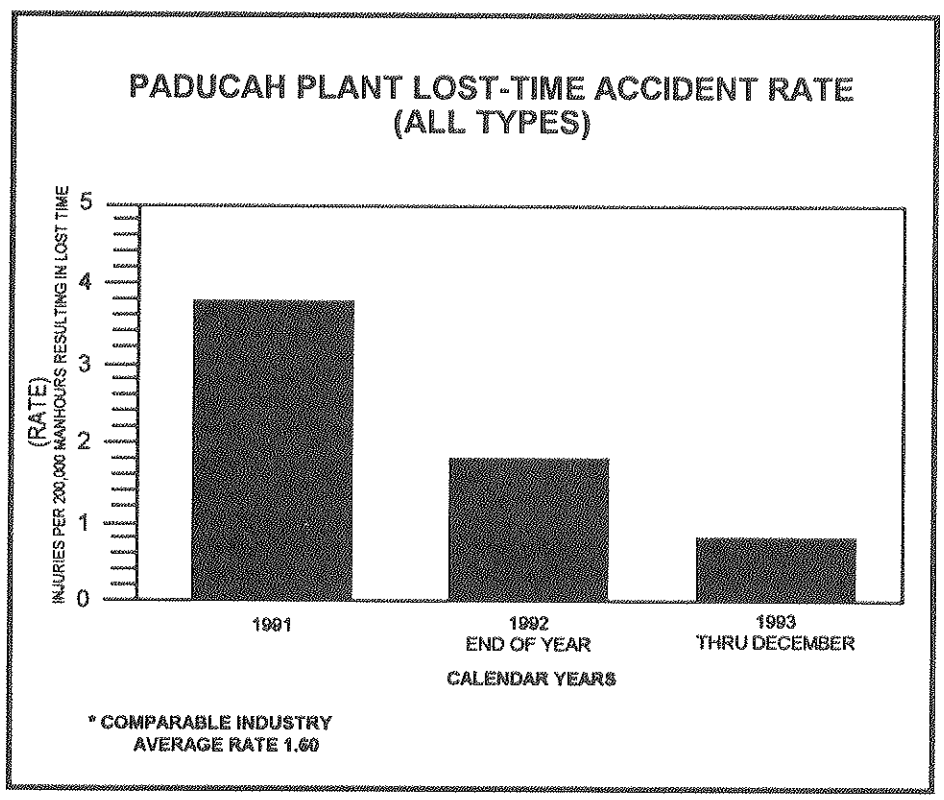
Safety

Paducah continued to make significant reductions in the number of employee accidents in 1993. Since 1991, occupational accidents have decreased by 33 percent. The number of lost workday case accidents decreased by more than 50 percent from 1992 levels. Increased attention to the plant safety program, combined with hazard recognition training for all employees contributed to this success. Improvements were also made in the safety and health suggestion program. People who raise concerns are now more involved in corrective action decision making and are kept up-to-date on the resolution process. Also, an intensive effort to reduce the amount of time that elapses from suggestion submission to final correction has improved turnaround time by more than 50 percent. An employee opinion survey on the safety program was completed in 1993 and results will be used as a baseline to measure future programs.

Production

A project that will enable the plant to enrich uranium up to 5 percent assay was a top priority in Paducah for 1993. Paducah has been limited to 2 percent enrichment, requiring the plant to ship its product to Portsmouth for further enrichment before it goes to the customer. When complete, this higher assay project will let USEC fill customer orders from either plant. This is important because it guarantees a reliable supply of enrichment services, a key point in USEC's marketing strategy. The project will increase the assay in steps, first to 2.5 percent and later to 5 percent. Most of the work required to go to 2.5 percent was completed in 1993. For example, process equipment had to be modified to ensure it is geometrically safe for higher assay operation. At 5 percent, the product must be handled differently to guard against any unplanned reactions or "criticalities." Many of these physical modifications are also acceptable for 5 percent operation. Project completion and approvals for 5 percent assay operation are anticipated during 1994.





Nuclear Criticality Safety training was provided for about 600 people in support of the 2.5 percent assay upgrade and basic training has already started for the next phase. The analytical laboratory capability was also upgraded to provide high assay support.

Nonfirm power use continued to provide key cost savings for the plant during a year when summer heat and flooding in the midwest combined to push power prices up. In August, Chemical, Utilities and Power Operations and Cascade Operations people worked hard to return the C-337 production building to service after an electrical fault forced its shutdown. Production losses were minimized, thanks to the outstanding teamwork that went into the restart effort. A compressor failed in C-337 in December, breaching the cell boundary, and leading to restricted entry to the building. A team was named to research the causes behind this failure, the first of its kind in about 10 years.

Off-normal events were reduced at Paducah by 46 percent in 1993 as compared to 1992. The more serious "unusual" events were reduced by 56 percent. These reductions resulted in a safer work place and have saved approximately $230,000 in administrative and investigative resources. A review of occurrence reports found a 30 percent decrease related to implementation of "Conduct of Operations."

Support Services

Six cooling towers installed in the early 1980s were refurbished in 1993 and one of the 40-year-old redwood cooling towers was replaced with a new structure. This new tower increases cooling capacity, supporting operation at higher power levels.

The plant's recirculating cooling water (RCW) system was converted from a chromium-based corrosion inhibitor to a more environmentally acceptable phosphate-based system in 1993. Corrosion rate meters have been installed in the converted systems, and the information they provide is used to chart RCW operations on a weekly basis. Wastewater is also monitored to be sure the treatment process that re-

(Continued on page 5)

1993 Portsmouth Highlights

Portsmouth

The Portsmouth plant got a new Plant Manager in 1993. In November, Dale Allen began his tenure by conducting several employee briefing sessions to introduce himself to the plant population and explain the "State of the Plant."

1993 was a year of education.

Former Plant Manager Ralph Donnelly started off the year by conducting 25 contamination control briefing sessions for plant employees.

A Health Physics training course was developed for Health Physics technicians.

Supervisor Certification Training began with Steve Satterfield, a Supervisor of the Compressor Shop, being the first to finish.

An Environmental Awareness Workshop began traveling around plantsite on May 26 and continued throughout the summer.

At the end of June, the Industrial Safety Department conducted a two-week Safety Awareness campaign in the X-102 Cafeteria; those employees who attended received Johnson & Johnson First Aid kits.

The first round of Portsmouth mentees completed the Mentorship Program.

Fire Prevention Week in October included an open house at the Fire Station with a visit from Lifeflight.

Emergency Management arranged for a Flammable Liquid Simulator to visit plantsite. The simulator was used to train plant firefighters as well as local volunteers. It was also a great asset in simulating an airplane crash during the annual emergency exercise.

During the fall, employees began using Interactive Multimedia to complete Radiological Worker training. Before the year was out, Portsmouth was offering a review and testout option for General Employee Training (GET).

On December 1, Portsmouth celebrated Health Physics Awareness Day to help employees learn more about radiological topics.

Personnel kept busy staying in compliance with training requirements during 1993 as:

- 672 completed Fall Protection training.
- 409 completed Hazard Control/Recognition training.
- 830 completed RadWorker II training.
- 37 completed an Orientation to Occupational Safety and Health.
- 86 completed Hazardous/Toxic Waste Management training.
- 28 completed a course on Polychlorinated Biphenyls (PCBs).
- 180 completed "Managing People: The Art of Leadership."

The Portsmouth plant's Technical Operations Division's Science Demonstration and Special Activities program completed its 30th consecutive year with the 1992-93 school year being the largest in the program's history. Employees took 69 trips to area schools, gave 71 science demonstrations to 8,470 teachers and students, and judged 21 science fairs.

1993 was a year of accomplishment.

X-333 maintenance and operations personnel worked through the night on February 4 to fix a leak in a recirculating cooling water (RCW) line, preventing a 16-hour outage of 13 '000' cells.

On March 9 and 10, personnel from the Y-12 Security and Safety departments and a DOE Oak Ridge Field Office representative visited Portsmouth to benchmark the plant's Security Police safety program.

On March 29, Portsmouth completed the removal of PCB-contaminated lube oil from eight lube oil process systems. An indoor picnic was held on April 21 to show appreciation for those who completed the work. The PCB project reduced the number of cells onstream which reduced Portsmouth's production capacity. However, the plant compensated for the loss in production by utilizing the enriched feed stockpile. Paducah was able to increase production as well to offset the impact from the PCB project.

In May, Portsmouth completed the haul of 1,600 tankers of groundwater from the X-705 to the X-622 Carbon Filter Treatment Facility, which led to the successful start up of the X-622T Treatment Facility.

During Environmental Compliance Month in June, employees worked weekends and evenings to improve housekeeping and to search out environmental noncompliances and rectify them. Vehicle cleanout stations were also set up to conduct mandatory inspections.

On July 17, the plant's Fire Department joined together with other fire departments in Pike County to conduct a water shuttle exercise, in an effort to reduce homeowners' insurance rates

(Continued on page 6)

1993 Paducah Highlights

(Continued from page 4)

moves phosphates works properly.

The Analytical Laboratory improved customer service in 1993 by developing customer interface roles and responsibilities. Laboratory efficiency was improved through acquisition of several automated systems. New procedures were also developed, such as analysis in support of criticality safety and a new procedure for analyzing Technetium-99, developed in a cooperative effort with Argonne National Laboratory.

The laboratory also provided unique analytical support to several projects such as phosphate conversion, and the C-337 equipment failure investigations. The laboratory provided design input and startup support for the Environmental Restoration Rad Screening Laboratory, analyzed Russian UF6, and improved Quality Control efforts.

Development of a new, state-of-the-art local area network-based nuclear materials accounting system (LANMAS) began in 1993. When complete in June 1994, the one-of-a-kind system will provide significant cost savings.

The number of accountable classified secret documents in the plant was reduced by 7410.

Modifications to the computerized Visitor Control Program created electronic visitor logs, greatly improving plant accountability reporting and providing daily updates. The Security Police Force adopted a new look with modern, more comfortable uniforms, purchased after a department-wide vote.

The Fire Services Department assumed responsibility for 350 fixed fire protection systems within the plant excluding switchyards in December. This includes coordination of maintenance/repairs, annual/monthly inspection, and annual/semiannual testing of assigned systems to ensure reliability. Construction began on a fire training tower that will enhance emergency response training and comply with standards set by the National Fire Protection Association and the Occupational Safety and Health Administration.

Environmental Issues

The use of trichloroethylene (TCE) and trichloroethane (TCA), industrial solvents used to clean equipment, was discontinued during 1993.

More than 2200 capacitors containing PCBs were replaced throughout the plant, significantly reducing the risk of PCB spills. A project to replace two PCB transformers was also completed, eliminating use of 630 gallons of PCB oil.

Installation of 11,720 troughs under the process building ventilation ducts was completed in November. This $18.5 million project greatly reduces the potential for spread of PCB contamination from the gasket materials used in the original installation of the ventilation duct system.

A leak detection and repair crew was developed to reduce the plant's chlorofluorocarbon (CFC) losses. CFC-114, used in the plant's cooling systems, has been identified as a potential threat to the earth's atmosphere. While a proper replacement is being sought, this crew has substantially reduced the amount of CFCs leaking into the atmosphere, resulting in cost savings and helping protect the environment.

Perfluorobutane has been identified as a potential replacement for CFC-114. A three-month in-process test of the substitute coolant was conducted this year. Some problems were noted, but, overall, it was seen as an acceptable replacement coolant for PGDP's '000' cells. Further testing at higher power levels is scheduled at Portsmouth in mid 1994.

Waste Handling

Safe and efficient management of the plant's waste continued to be a top priority in 1993. The second successful low level waste shipment was completed. Forty-two containers of fissile waste were declassified to low-level waste, adding to the available storage

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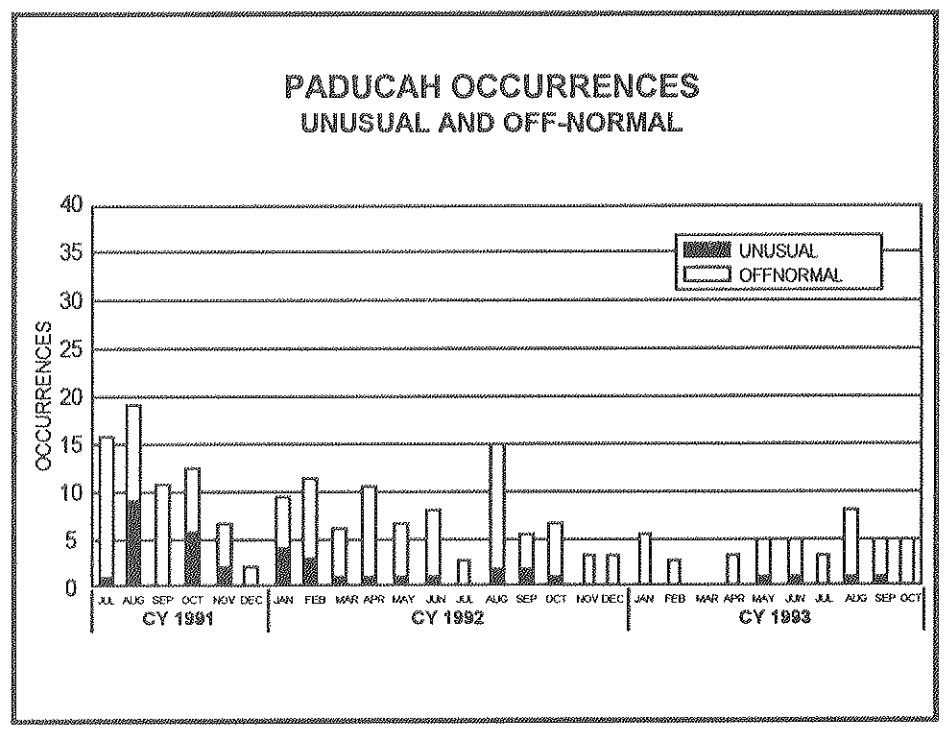

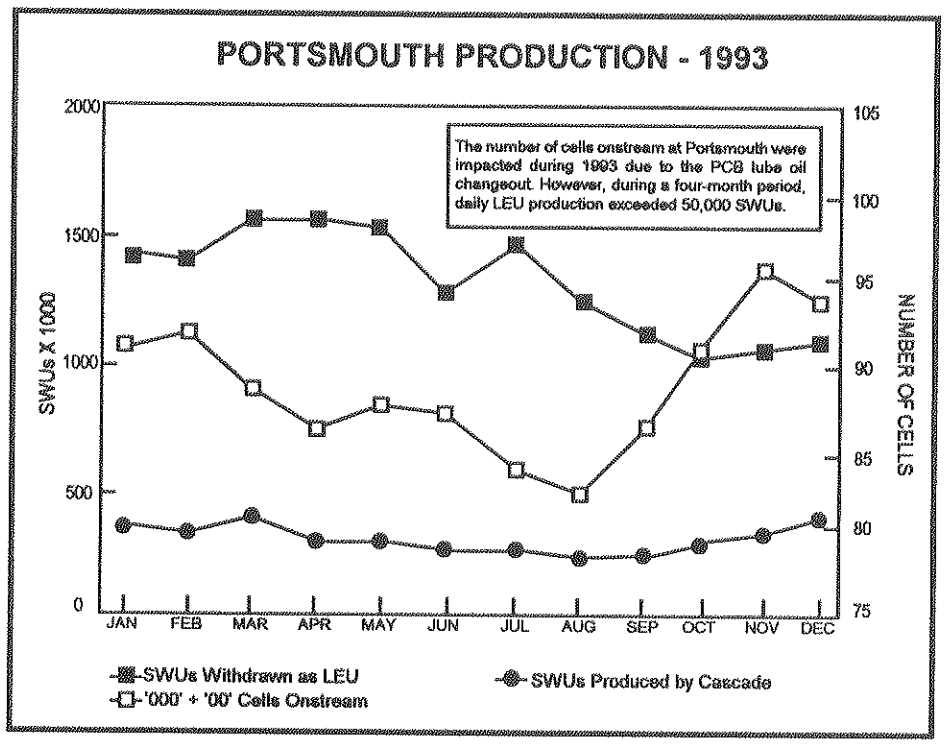

1993 Portsmouth Highlights

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for county residents.

During Fiscal Year 1993, the Uranium Material Handler classification at Portsmouth installed a total of 658 parent cylinders in one of the four autoclaves in the X-344 Toll Enrichment Facility. This established a new plant production level for the number of parent and daughter cylinders processed through that facility.

When the final low enriched uranium (LEU) order for October delivery was withdrawn from Portsmouth's cascade on August 25, this completed a 10-month period of record cascade LEU production levels that extended between December 1992 and August 1993. LEU production levels for this period were 20 percent above average.

On August 21, nearly 500 people took part in "Emergency Teamwork '93", the third Emergency Teamwork Full Participation Exercise to be conducted at the Portsmouth plant. The exercise scenario presented a situation where an airplane crashed on plantsite causing a hazardous materials release and a large fire to develop. Forty-one local, state and federal agencies participated in the exercise.

During 1993, a new data base for procedures was started at Portsmouth. This was the beginning of a plan formulated in the late 1980s to provide employees with easier access to current procedures through a computerized reading and distributing system. About 3,800 regulatory requirements have been identified and are being processed for inclusion into the data base. In line with the effort to develop joint UE procedures with Paducah, a new procedure numbering scheme was devised, establishing levels from MMUS policies down to departmental operating procedures. This included the adopting of nearly 200 MMES policies/procedures into Portsmouth's system on July 1, 1993, allowing the transition to Utility Services. The Procedures Department also continued to support the transition from HEU processing to suspension which required the preparation of more than 50 highly technical procedures. In addition, more than 400 procedures were upgraded as UE or site specific procedures, and another 200 procedures were changed using the Red-line process.

1993 was a year of recognition.

Twenty-nine Portsmouth employees won the President's Award for Continuous Improvement and received these awards personally in January from then Energy Systems President Clyde Hopkins.

After the plant provided assistance during the uprising at the Southern Ohio Correctional Facility (SOCF) in April, they received the Ohio Commendation Medal from Governor George Voinovich. The DOE Communications Vehicle was staffed near SOCF around-the-clock, and the plant also provided essential equipment during the riot.

In May, the United Plant Guard Workers of America Local 66 honored Major Mike Kelly with the award for Instructor of the Year.

On May 28, the ninth annual Energy Systems Awards Night was conducted in Knoxville. Portsmouth had four Management Achievement Award winners. Four teams and one individual won the Operations and Support Award, and one team won the Technical Achievement Award. Employee Tony Dryden won the Community Service Award for his ham radio work during the Massieville flood.

1993 was a year of pulling together.

In March, the Ohio Attorney General's Office and the Ohio Environmental Protection Agency (OEPA) conducted public meetings to encourage public input on the storage of hazardous mixed waste at the plant. More

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1993 Paducah Highlights

(Continued from page 5)

space. An oil characterization project allowed many waste oil drums to be reclassified as nonhazardous.

A new satellite waste accumulation area concept was piloted in the maintenance shops in C-720. The new approach reduced the chance for noncompliances and proved popular with users. Systems and procedures were developed to handle higher assay waste, and necessary training was completed on the new process. A 10,000 square-foot, $250,000 low-level waste storage facility was completed in November. Installation represented a three-month intensive team effort involving many work groups.

The plant also continued to focus on waste reduction. In addition to eliminating TCE and TCA, the plant began sending cafeteria waste grease off-site for recycling, bought a vacuum bagging machine that recycles packing materials, purchased 250 metal pallets to replace easily damaged wooden ones and reduced waste oil.

Review and Assessment

A Nuclear Regulatory Affairs Office was established in 1993 to serve as a focus for nuclear safety and safeguards and security regulatory matters. The office will interface with the Nuclear Regulatory Commission (NRC) during its development of a certification process for the plants. NRC will eventually assume regulatory responsibility for nuclear safety issues at both plants.

Because of changes in business plans and regulatory oversight, all commitments made prior to July 1 were evaluated and many were canceled or rescheduled. Paducah was designated as Lead Site for the IRMS database and related work was moved to Paducah.

Procedures

In 1993, a new data base was installed for procedures, requirements information, and training modules. About 1850 requirement units were identified, entered into the data base and linked to 150 implementing procedures. Special campaigns were held to complete upgrades for Power Operations procedures and the High Assay Project, bringing the total number of procedures upgraded during the year to 450.

Paducah was assigned responsibility for Uranium Enrichment (UE) policies and standard practice procedures (SPPs). During the year, more than 200 Energy System policies and procedures were identified to be adopted for Utilities Services. These were combined with Wendy Fields' "Notebook Policies" and issued as two manual sets. A total of 189 UE policies and 50 SPPs were issued for use at Paducah and Portsmouth.

Emergency Management

Paducah's EOC underwent major modifications this year resulting in a larger operating space, a protected environment with a ventilation system, an upgraded telephone system, and new furnishings. The EOC was put to good use in 1993 with activations on four occasions. These included a severe thunderstorm, the C-337 electrical fault incident, the C-337-A HF release, and the C-337 equipment failure.

The Emergency Management Department joined the City of Paducah in implementing a new 800 MHz two-way radio trunking system for emergency use. The system provides the plant with a dedicated emergency channel for emergency response forces and makes communication with the Paducah-McCracken County 911 Center possible. When the system is complete, PGDP will have a direct link with the State Emergency Operations Center.

Administrative

The plant successfully negotiated a three-year contract this year with Oil, Chemical and Atomic Workers Local 3-550 which represents about 750 people. Salaried employees were given the opportunity to flex their work hours and the compressed four 10-hour-days work week was also offered on a trial basis to some groups.

Leadership development training was provided for 256 people in 1993 through the Covey Leadership Center program, "The Seven Habits of Highly Effective People. About 800 more people are expected to participate in the program in 1994.

Major milestones were reached in the project to replace existing Financial, Materials Management, and Human Resources computing systems for both Paducah and Portsmouth. After testing and purchasing appropriate software, current business processes were confirmed, future requirements defined, interfaces identified, and conversion tasks designed. Installation started on the telecommunications structure that will eventually allow users in both plants to access these new systems. Most of the software and telecommunications structures should be in place by April.

A new cost accounting system installed this year in Oak Ridge changed the business calendar, leading to many software modifications. These changes involved fifteen different software systems and also required revisions to many existing operating procedures.

The ALLIN1 VAX computer system used plantwide for electronic mail, data processing and other routine tasks was upgraded, providing an almost threefold increase in capacity and improving user productivity. Previously required limits on the number of concurrent users and the number of available accounts were lifted.

In August 1993, a copy of the SCALE computerized Criticality Calculation system was moved from Oak Ridge to Paducah. Direct access to this system resulted in a $160,000 annual cost savings in computing charges. The Materials Management System computer was upgraded three levels, doubling the number of available user connections.

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1993 Portsmouth Highlights

(Continued from page 6)

than 600 people attended the March 18 meeting at Shawnee State University in Portsmouth. On April 29, Attorney General Lee Fisher and OEPA Director Donald Schregardus announced that the OEPA would grant an extension to allow the plant to continue the storage of hazardous wastes on site. DOE and the OEPA signed the agreement on May 17.

At this same time, a united independent coalition was formed by members of OCAW, UPGWA, the salaried workforce, local business and civic group members. They called themselves STEP (Support the Enrichment Plant). STEP continues to work with local, state and federal officials to ensure the continued operation of the Portsmouth plant into the next century.

1993 was a year for helping our neighbors and employees.

In January, the Tri-State Red Cross Bloodmobile visited the plant, collecting 227 successful units. In July, the Bloodmobile returned and collected 185 successful units, for a total of 412.

Earlier in the year, the plant purchased Telecommunication Devices for the Deaf (TDDs) for hearing-impaired employees at the plant. They were also outfitted with their own personal pagers so they could be contacted in case of an emergency. They also received training on how to use this equipment.

In February, members of the plant's Fire Department helped to extinguish a grain bin fire at the home of Ronnie Pennington, a farmer in Beaver. Their assistance, along with that of Beaver Fire Department's, helped to greatly minimize Pennington's losses.

In April, the plant, as mentioned earlier, provided valuable assistance during the SOCF riot. The DOE Communications Vehicle was dispatched to the scene and was able to help with multiple communications needs. The personal computer and printer in the vehicle also helped the Ohio State Patrol and the state's Fire Marshall. Video equipment in the vehicle was used to monitor media coverage. Various maintenance crews at the plant also provided assistance.

Also in April, DOE and Martin Marietta donated models of the Gas Centrifuge Enrichment Plant to Shawnee State University to be used in Engineering and Architectural classes.

In the 1993 Savings Bond campaign, Portsmouth led Energy Systems in percentage participation increase by jumping nine percentage points since the 1992 campaign. Total plant participation was 71.6 percent with salaried workers and members of UPGWA Local 66 participating.

During the United Way campaign in the fall, Portsmouth raised donations and pledges of more than $78,000. Combined with a corporate gift of $18,000, the United Way agencies received a total of more than $96,000 from the Portsmouth plant to provide help to area citizens. Salaried employees and employees represented by UPGWA Local 66 took part.

During 1993, the plant donated more than $32,000 to local charities and civic organizations.

1993 was a year for special events. Roger De Carlo Stowe of Columbus spoke at the January 14 program commemorating Martin Luther King Jr. and told us that "we're all in this together, and it's up to us to make it better." At the February 22 Black History Month celebration, noted former high school principal Joe Clark, featured in the movie "Lean on Me," told us to "get up off your rusty dusty and do it for yourself." He added, "Ain't nobody going to do for you what God has given you the strength to do for yourself."

On February 11, Clyde Hopkins, who was President of Energy Systems at that time, brought the President's Forum to Portsmouth with a theme of "Striving for Excellence: Our People Make the Difference." Besides Hopkins, other speakers included Wendy Fields, Bob Merriman, Dave Taylor,

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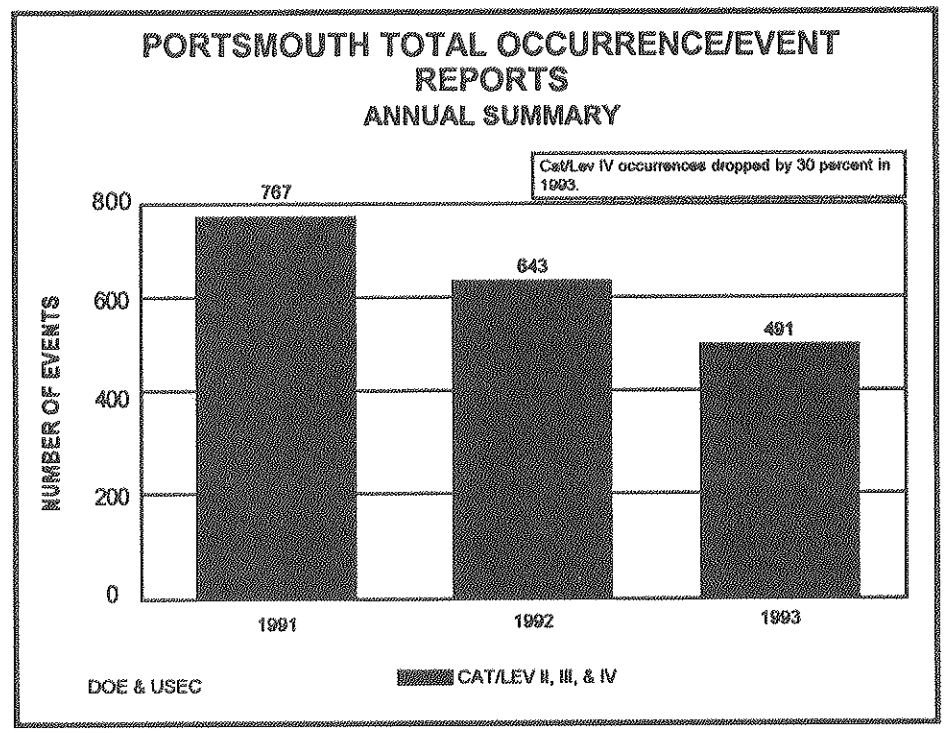

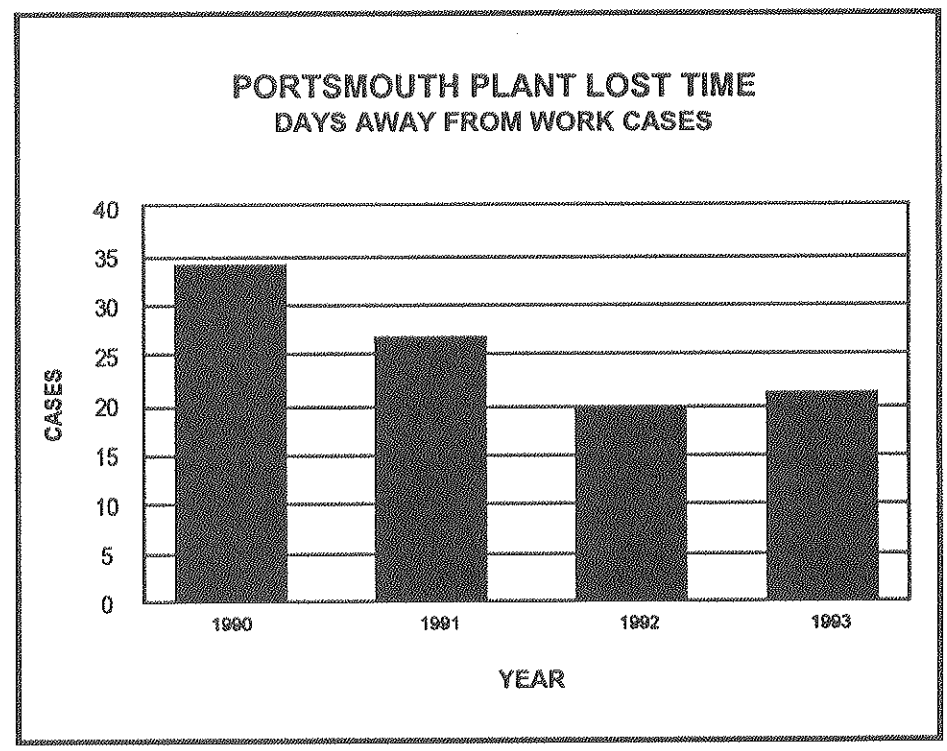

1993 Paducah Highlights

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Quality Program Plan Revision 1 was issued in 1993 and a video is being developed to train plant people. Quality Systems worked with Portsmouth to complete three chapters in the Regulatory Oversight Agreement.

Job Task Lists for Cascade Operators, Environmental Technicians and Plant Shift Superintendents positions were validated during 1993 through "table top" and "survey" methodologies. Inter-Active Video Instructional technology was also added this year for several maintenance and OSHA safety programs.

Facts and Figures in 1993...

- Power Operations completed 21 years (7,000 days) without a lost workday case.
- Paducah's average operating power level was 1362 megawatts.
- 55 percent of the power used to operate the plant was nonfirm (short-term power purchases made when electric utilities have more power available than their customers need, resulting in lower costs).
- The total cost avoidance through use of nonfirm power was $130 million.
- Utilities provided 550 million pounds of steam, 22 million cubic feet of nitrogen, 4 billion cubic feet of dry air and 5.4 billion gallons of water for the plant.
- The Analytical Laboratory analyzed 47,887 samples.
- 2,051 fluorescent bulbs were recycled.
- 1200 people received OSHA training and 1000 received Radiation Worker Safety Training.
- The plant exceeded limits set by the Kentucky Pollutant Discharge Elimination System (KPDES) one time, a 94 percent reduction from the 16 exceedances recorded in 1992.
- The plant received three "Notices of Violation" from environmental agencies, down from nine received in 1992.
- The total number of environmental and waste management non-compliances dropped by 28 percent, from 158 in 1992 to 113 this year. Of those, 31 percent resulted from mishandling light bulbs, and 26 percent were identified in the trash sorting facility.
- 13 independent audits were successfully completed.
- 36 independent surveillances on plant activities were completed from January to August.
- Employees raised $107,805 during the plant's 40th United Way Campaign.
- The plant's 85.7 percent participation rate in the Savings Bond Campaign was the best in Energy Systems.

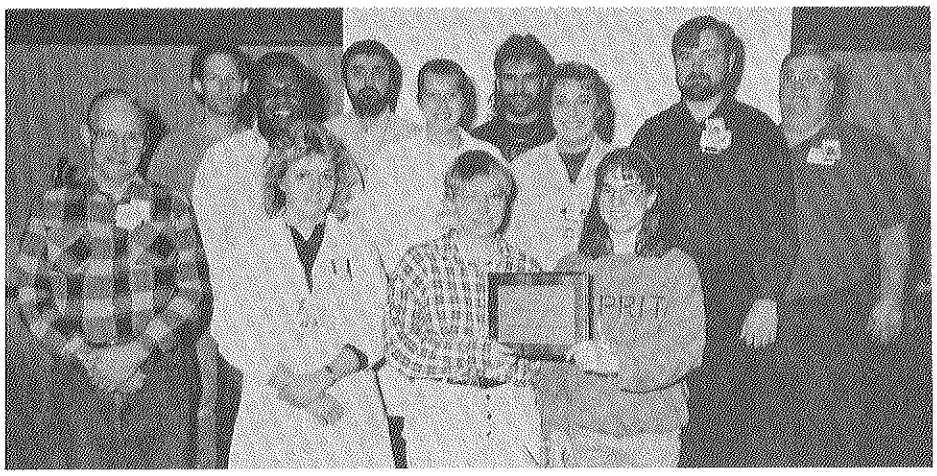
Portsmouth lab personnel receive awards

On December 15, 1993, awards were presented to three ES&H laboratory departments at Portsmouth for outstanding performance in 1993. The awards were given in three critical mission success categories: Cost Savings Initiatives, Outstanding Customer Service, and Outstanding Technical Quality. These awards are planned to be presented annually.

The Cost Savings Initiatives Award was given to the Radiochemistry Department (above) for implementing improvements to laboratory operations that saved an estimated $27,100 annually. The savings were realized by minimizing waste generated in the laboratory and by more efficient analytical procedures. Billy Short (left) is the Department Manager. Pictured above are Short, Becky Tipton, Jim Litteral, Craig Barker and Joe Brewster.

The Outstanding Customer Service Award was presented to the Environmental/IH Analysis Department which reported 97.6 percent of its analytical results on or before the deadline set by the customer who submitted the samples. Debby Perez is the Department Manager. Pictured above right are (front row) Jeanne Southworth, Robin Hughes, Lisa Dryden, Jeannie Addleman, Tabby Copley, (back row) Terry Barnett, Julie Stroebel, Cathy Holbrook, Debby Perez, Leigh Lemaster, Jolene Turner, Peggy Saffles and Don Opalinski.

The Outstanding Technical Quality Award was presented to members of the Organic Analytical Services Department for reporting 100 percent of the blind controls within the acceptable range in 1993. Jim Williams is the Department Manager. Pictured below are (first row) Gene Harris, Pam Ward, Mary Novotny, Beth Gatchell, (second row) Williams, Diane Stevenson, Angie Andrews, Marty Kelley, Ron Wawro, (third row) Daryl Wood, Bob Fuhr and Scott Payne.



Service Milestones

February 1994
Paducah

35 Years -- S. C. Blue.
30 years -- D. R. Sampson.
25 years -- J. T. Yarbrough.
20 years -- R. L. Crim, L. M. Givens, T. L. Wooley, R. L. Yates, S. H. Booker, A. J. Story, S. M. Keeling, and J. M. Smith.
15 years -- S. J. Davis (MMES), J. K. Price and M. A. Buckner.
5 years -- K. A. Gordon, R. D. Gregory, M. E. Cantrell, E. S. Sisson, B. P. Northington, K. J. Minter, H. D. Shockley, W. E. Burch, C. A. Powell, G. S. Baker and C. E. Althoff.

Portsmouth

40 years -- Roger L. Friece and Joseph E. Hale.
25 years -- Wesley K. Handy.
20 years -- Pauline L. Whisnant, Sammie M. Cooper Jr., Betty J. Koehler, Jack Scott, David E. Shepherd, Timothy V. Cutlip, Peggy L. Hatten and John L. Cannon Jr.
15 years -- Roger D. Riddlebarger, Mary M. Karr, Jon T. Matchett, Richard D. Crabtree, Lowell E. Knapp, Calvin Parker Jr., Brian K. Cornish, Robert W. Jindra, Randall E. McGinnis, Gary W. Howell, Denise M. Austin, Suzanne Cornwell and Gerald L. Bailey.
10 years -- Tammy L. Scowden.
5 years -- Phyllis A. Smith, Tanja Y. Spencer and Jeffrey A. Hedges.

1993 Portsmouth Highlights

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Ralph Donnelly and Wayne Spetnagel.

On April 1 and 2, Portsmouth hosted the five-site Values Meeting with special speaker Jeri Trevisani, Manager of Workforce Diversity at the former GE Aerospace in Valley Forge, Pa. (now Martin Marietta) She stressed the need for more people at the company with diverse backgrounds.

At the end of June, the Values Council held a "Red, White and Blue Day" to celebrate Flag Day and Independence Day. South Webster high school teacher Howard Richard visited as "Uncle Sam."

In September, we were visited during Native American Celebration Week by Shawnee State Professor Roland Williston, a Choctaw native who encouraged us to speak about our culture. We also were visited by Native American dancers, and many of us got a chance to see native art and artifacts in the X-102 Cafeteria.

Also in September, hundreds of Portsmouth employees, retirees and their families and friends enjoyed the 1993 Employee Outing at Wyandot Lake in Columbus.

In November, former Vietnam P.O.W. Edward J. Mechenbier spoke at a special Veterans Day Ceremony on plantsite.

Of course, this was not EVERYTHING that happened at the Portsmouth plant during 1993. Additional facts and figures are shown below.

Facts and Figures In 1993...

- Portsmouth averaged an operating power level of 1,360 megawatts with a maximum load of 1,558 and a minimum load of 1,065 megawatts.
- Permanent power supplied 99.97% of Portsmouth's total power consumption while supplemental and arranged power supplied 0.03%.
- Daily low enriched uranium (LEU) production exceeded 50,000 separative work units (SWUs) daily during a four-month period.
- The Analytical Laboratory analyzed 90,855 samples.
- There were 31 audits completed, seven of which were required by, and provided to, USEC in accordance with the July 1, 1993, Lease Agreement.
- Fifty-five surveillances were completed.
- The majority of actions were completed that were needed to implement the recently revised Quality Program Plan, including the development and implementation of a number of new procedures.
- The total number of environmental and waste management nonconformances dropped by 41 percent, from 140 in 1992 to 83 in 1993.
- Portsmouth reduced the number of exceeded limits set by the National Pollutant Discharge Elimination System (NPDES) by 23 percent in 1993. The plant is now in 99.39 percent compliance.
- Portsmouth received three "Notices of Violation" from environmental agencies, down from six received in 1992.
- Seventy boxes of fluorescent bulbs (approximately 2,100), and two shipments of lead-acid batteries consisting of nearly 20,000 pounds, were shipped to off-site reclamation facilities for recycling.
- Approximately 900 personnel attended an Environmental Awareness Training Program which was developed in 1993. This program focuses on prevention of nonconformances, particularly those dealing with generator management of hazardous waste.
- Also in the environmental area, a plantwide ban was placed on the purchase of aerosol can products.
- Stack testing for all three boilers at the X-600 was completed, and the test reports submitted to Ohio EPA to maintain the site boiler permit authorization.

ERWM continues cleanup activities for DOE

The year 1993 surely will be cited in historical accounts of the Paducah and Portsmouth Gaseous Diffusion plants from this point forward. This was the year when both plants, with a combined production history of 80 years, experienced one of the most significant changes since their start-up in the 1950s. Actually, the whole year was spent in "transition," with the official date as July 1, 1993.

The change was this: The U.S. Enrichment Corporation (USEC) on July 1 assumed management of production at both plants, with most Energy Systems employees going to work for Martin Marietta Utility Services (MMUS), created as the maintenance and operating contractor for the USEC.

Yet, with this change, with USEC and MMUS in charge of production, the role of DOE and Energy Systems at the enrichment plants emerged as important, challenging and focused. More than 300 people now work for DOE and Energy Systems in Environmental Restoration and Waste Management (ERWM) at the two sites. DOE still owns the plants, and leases the production facilities to USEC. DOE is responsible for environmental restoration, waste management, corrective actions, nuclear safety oversight and numerous associated activities. Energy Systems has the role of the management and operating contractor for DOE at Paducah and Portsmouth. To lead the Energy Systems work for DOE, site managers for ERWM were named at both sites, reporting directly to ERWM managers in Oak Ridge. Jim Massey is Paducah's Site Manager, and T. David Taylor holds that position at Portsmouth.

Highlights of 1993 from ERWM at Paducah include:

- Signing of the first Record of Decision (ROD) in Environmental Restoration, by DOE and EPA, with concurrence by the State of Kentucky. The project agreed to in the ROD is an interim remedial action designed to begin containing contaminated groundwater north of the plant.
- Implementation of DOE's new Water Policy, through which DOE provided and paid costs of a municipal water supply to residents in a defined area generally north of the plant. Since the discovery in 1988 of groundwater contamination associated with the plant, DOE has provided the municipal water supply immediately upon detection in a residential well. This new Water Policy went beyond this, offering the municipal water supply to all people in the area with wells with any possibility of effects in the future from the two contaminants associated with past plant operations.
- Elimination of the use of trichloroethylene (TCE) at the site, one of the two groundwater contaminants, effective July 1, in favor of water-based degreasing solutions.
- EPA's proposal in May to add the Paducah site to the National Priorities List (NPL) under CERCLA, or Superfund, and negotiations intended to lead to a Federal Facility Agreement (FFA) among DOE, EPA, and Kentucky, to establish a framework for long-term cleanup of the site.
- Completion of PCB troughing, a major project in the production buildings, and replacement of an extensive amount of PCB-oils switchyard equipment, all part of a TSCA Federal Facilities Compliance Act.
- Initiation of the permitting process to construct a landfill that will meet stringent new state requirements and provide needed additional capacity for disposal of municipal solid waste and limited industrial waste from the Paducah site.
- Opening of the DOE Environmental Information Center at Kevil, Kentucky, near the site, to hold Administrative Records and an information repository.

Highlights for 1993 from ERWM at Portsmouth include:

- The DOE Environmental Information Center opened in Waverly, Ohio, to provide documents on the Environmental Restoration Program to the public.
- Initial Resource Conservation and Recovery Act (RCRA) Facility Investigations were completed for all four quadrants at the site with the August 1993 submission of the Quadrant IV RFI draft report to both Ohio and U.S. EPAs.
- Closure certifications were received from Ohio EPA on three major projects, the X-616 Surface Impoundments, X-749 Contaminated Materials Landfill and the former X-705A Incinerator. Three other completed projects are awaiting certification approval.
- An innovative in situ soil treatment, successfully field tested previously at the site, was initiated in December 1993 at a waste oil biodegradation plot. Treatment involves mixing clay soils in place while injecting hot air and a diluted hydrogen peroxide solution to volatilize organic contaminants. Field demonstrations exhibited more than 90 percent VOC removal.
- A fifth on-site groundwater pump and treatment facility is nearing completion. Construction began in May 1993 and the facility is expected to be operational in February 1994.
- Final vegetative covering is being placed on a six-acre classified materials landfill to complete a multilayer cap in accordance with RCRA.
- A supplemental environmental project was proposed to U.S. EPA Region 5 in September 1993 to install a sludge dewatering system at the plant's wastewater treatment facility. This project will reduce the volume of sludge waste by 50 percent at this unit.
- Comprehensive waste sampling/characterization and drum relabeling projects were initiated in 1993 for the site's waste management program.

Portsmouth ERWM holds public meeting

Officials from the U.S. Department of Energy (DOE) and Martin Marietta Energy Systems, Inc. (MMES) met with approximately 60 members of the community on the evening of November 18, 1993. The meeting was conducted at the Vern Riffe Pike County Joint Vocational School to present an update and answer questions on the environmental restoration and waste management programs at the Portsmouth Gaseous Diffusion Plant. Topics included corrective actions and environmental restoration projects completed or underway and the newly-enacted Federal Facilities Compliance Act (FFCAct)

John P. Karnes, Psychologist for the Waverly City Schools, served as community moderator for the event. Presenters for the meeting included John Sheppard, Deputy Site Manager, DOE; Richard Meehan, Environmental Restoration Program Manager, DOE; and T. David Taylor, Manager, Environmental Restoration/Waste Management Site Operations, MMES.

Sheppard began with an explanation of the new management structure effective July 1, 1993, at the plant and the roles of DOE and MMES in the ongoing environmental restoration/waste management efforts. He then discussed the FFCAct public participation initiatives and a stakeholders' workshop held on October 21 at the plant. The workshop was conducted to inform and encourage community leaders to participate in the development of a site treatment plan for mixed waste currently stored at the facility.

Meehan gave an overview of the corrective actions process and an update on the efforts being conducted in accordance with the Resource Conservation and Recovery Act (RCRA). Included in his discussion was information on the completed Quadrant IV investigations and report submittal to the Environmental Protection Agencies and the commencement of the corrective measures studies. Meehan also announced an expedited work schedule for the cleanup of contaminated soils at the X-705 Incinerator.

"Because we believe we have characterized the problem sufficiently, we will be speeding up the cleanup process in this area," stated Meehan. "This may well move it ahead of the remaining units. We will be doing this wherever and whenever we can."

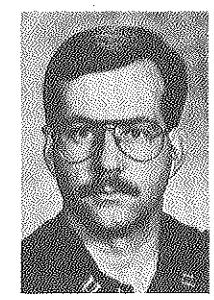
Taylor reviewed progress on the environmental restoration projects underway at the plant. Areas covered included closure of the Classified Waste Disposal facility (X-749A), the South Groundwater Plume investigation at the south end of the plant and the X-231B soil treatment project. He also reported that an updated aerial radiological survey was conducted in August 1993 to identify any radiological emissions and/or contamination at the site.

A response to a question from the May 1993 public meeting preceded the question and answer session. Concerns had been expressed regarding the use of chromium rust prohibitors in cooling water and the discharge of such metals into surface waters. It was explained that the plant has switched to a phosphate-based rust inhibitor and has remained in compliance with waste water discharge permits. Although residual chromium has been found in both Big and Little Beaver Creek sediments, the levels are very low and not a public health concern.

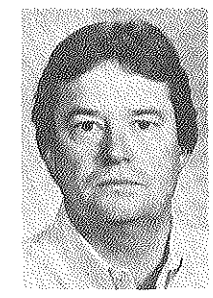
"The levels of chromium found by OEPA in fish tissue samples from Little and Big Beaver Creeks are about 1,000 times lower than our calculated risk levels for that contaminant," reported Taylor. "However, we are continuing our studies in an effort to verify the risk numbers and ensure the protection of the environment and human health."

Future community involvement activities include a stakeholders' workshop in early 1994 to discuss whether or not the community would like to form a site-specific advisory committee for working on plant environmental restoration and waste management issues.

Administrative Promotions



Smith



Reynolds

Paducah

Steve Smith was promoted to Captain in the Security Police Department. He reports to Frank Graziano, Department Manager.

Steve Reynolds was promoted to Technical Associate in the Waste Management Operations Department. He reports to Linda Beach, Department Manager.

January snowstorm brings out the best in UE

On January 17, both Paducah and Portsmouth received their heaviest snowfall in 16 years. Paducah received 7-10 inches of snow on top of two inches of freezing rain, and Portsmouth recorded 18 inches. In areas of Scioto County, accumulations as high as 30 inches were reported. By Monday afternoon, Paducah had temperatures in the single digits, and by Tuesday morning, January 18, the temperature at Portsmouth had fallen to a low of 25 below zero.

The severe weather caused problems for people driving to and from work and led to reduced plant power loads when suppliers began to struggle to meet customer power needs. Some UE employees were already scheduled to take off for Martin Luther King Day, but they spent the day digging out in order to reach work on Tuesday.

Darryl Bentson, Roads and Grounds Supervisor at Paducah, said his crew was called in to work four hours on Sunday, when the ice began to accumulate. They returned Monday morning to work 16 hours on snow removal. They were assisted by heavy equipment operators and truck drivers, also from General Plant Services. Most of his crew stayed overnight at the plant Monday, Bentson said, to avoid traveling.

On Sunday night, Portsmouth's Plant Shift Superintendents activated the site emergency snow and ice removal plan, and John Kyle arrived to coordinate the effort. John and the crews he called in were not relieved until Tuesday. Those who worked on the plan included Truck Drivers, Laborers, Masons, Maintenance Mechanics, Janitors, Mobile Equipment Mechanics and several salaried personnel.

Dewey Word, Paducah's D-Shift Cascade Operations Coordinator, said almost his entire crew, on duty Sunday night, stayed four hours over to provide coverage for operators who were unable to get to the plant Monday morning. Thirteen of the operators stayed for 20 hours. Security Police were faced with much the same situation. Captain R.B. Wainscott, D-Shift Supervisor, said a number of people worked over, and many stayed the night to provide coverage.

At Portsmouth, at least 114 employees in the three process buildings worked 16 or more straight hours during the emergency, and some worked as many as 32 hours. Ten employees in the X-342 and X-343 also worked 16+ hours as did 15 people in the X-344. Members of the Police Department also stayed at the plant on Monday to provide coverage.

Meanwhile, Paducah curtailed its nonfirm power use so that utilities in the Midwest could meet their basic customer needs. The plant power load dropped over a two-day period from 1400 megawatt (MW) per hour to 630 MW per hour. The load reduction at Paducah was caused by generator outages and power shortfalls on the Electric Energy Incorporated, Illinois Power, Union Electric and Tennessee Valley Authority systems. During the period, replacement power to maintain minimum load levels cost from $18.60 to $101 per MW hour. Ron Taylor, Power Operations Department Manager, reported that "Power Operations and Cascade Operations people responded beautifully in reducing the load as smoothly and quickly as possible following the storm." He said cascade feed rates were reduced, material was stored in freezer sublimers and surge drums, and 16 operating cells were shut down to reduce the power load. Full load was restored January 23.

Portsmouth initiated a reduction in power usage of 365 megawatts, equivalent to one day of electrical service for nearly 300,000 residences, making additional power available to area residents through regional utility companies. In order to achieve the power cutback, twelve "000" cells and four "00" cells were taken offstream beginning Wednesday, January 19. By January 21, 14 of these 16 cells had been returned to service.

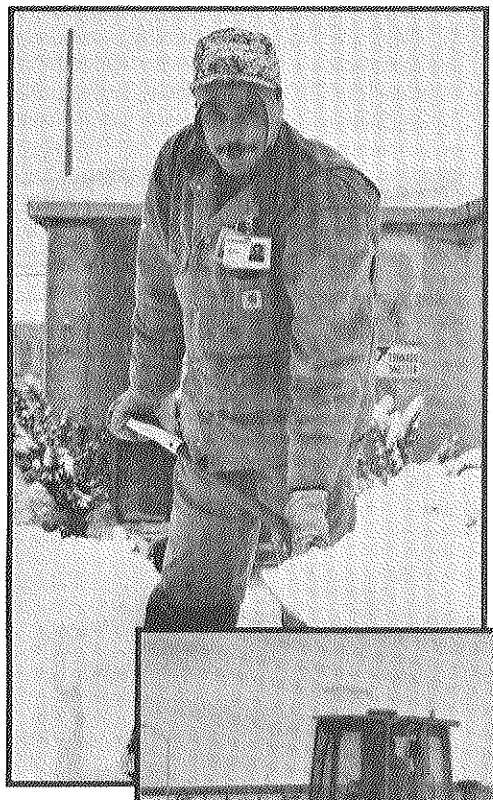
In addition, the Portsmouth plant responded to a mutual aid request by supplying a mobile electrical generator to the neighboring Stockdale Fire Department. The fire station was being used as a community emergency shelter during a power outage in the Stockdale area.

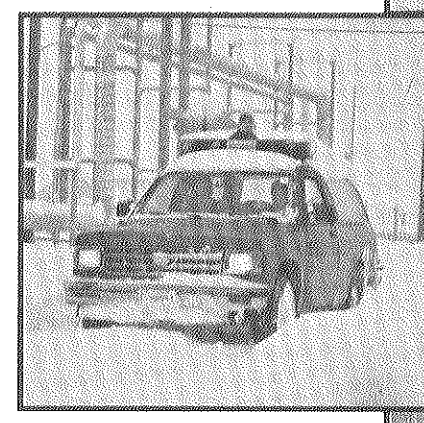
Paducah Plant Manager Steve Polston said he was pleased with Paducah's response to these problems: "The outstanding teamwork in dealing with the difficult weather challenge contained the impact on the plant. I wish to thank all the people that joined hands to pull us through a very severe situation."

Portsmouth Plant Manager Dale Allen commended his employees for their support as well during the severe weather. "Special thanks to those employees who had to work extra shifts and to those employees who were able to make it into work despite the severe weather conditions," he stated.

Bill Bennett, USEC Vice President of Production, sent a letter to all Paducah plant employees, commending their efforts in dealing with difficulties brought on by the weather: "I was at the plant on Monday and observed how effectively people worked together toward a common focus. People also showed concern for each other which added some 'sunshine' to the dreary conditions. Many worked several hours to get to the plant and then spent many hours at the plant. I was truly proud to be a part of the PGDP team."

On Tuesday, January 25, Bennett and George Rifakes, USEC's Executive Vice President of Operations, visited the Portsmouth plant to publicly thank employees for their hard work during this emergency.





The Portsmouth plant is shown here "digging out" of the January 17 snowstorm. At top left, Anthony Hairston (Roads and Grounds) shovels the walk, while at left, employees work to clear off the MST parking lot. Above, driving through the deep snow proved difficult. Above right, Clovis Journey (Roads & Grounds) works to clear the way.

Blood drives successful despite weather

UE employees were able to help their local chapters of the Red Cross during a critical time recently. The Bloodmobile visited Portsmouth on January 3, collecting 63 units of blood. In anticipation of the snowstorm that hit that evening, members of the Bloodmobile spent the night at the Comfort Inn in Piketon. On January 4, the Bloodmobile returned to the plant and collected 83 more units in a three-hour period . A blood drive at Paducah on January 12 and 13 collected 148 total units. These units were donated at a time that the nation and the Tri-State has been experiencing critical shortages in the blood supply.

Portsmouth employees show holiday generosity

Gifts for Needy Children

Thanks to the generosity of employees at the Portsmouth plant, many children in the surrounding counties had a much happier Christmas. During the month of December, Christmas trees were set up in each of the plant's two cafeterias. Nametags were placed on the trees with information about needy children and the gifts they wanted for Christmas. Area schools assisted in providing this information to plant employees. By Christmas, more than 1,000 gifts were purchased, wrapped and delivered to children in Pike, Scioto, Ross, and Jackson counties in Ohio as well as Greenup County in Kentucky.

Reports back from the organizations and individuals that distributed the gifts to the children indicated that many of these children were very needy. In some cases, that gift was the only one the child received for Christmas. Many of the parents expressed their deepest appreciation to the employees who helped make this a special Christmas for their children.

Credit for this effort's success goes to Gary Crandall who coordinated the project, and to those who assisted him which included Tammy Marsh, Samantha Doty, Sandy Etling, Janet Hieneman, Val Tinsley, Eva Beatty, Becky Jarrells, John Gedeon, Jan Mann and Cheryl Salmons.

> ***"I am extremely proud of our employees and the efforts they made during the holidays to brighten the Christmas season for needy children. They spent many hours making these programs successful, and it is this spirit of teamwork and hard work that makes our employees a very special group of people.***
>
> ***Dale Allen***

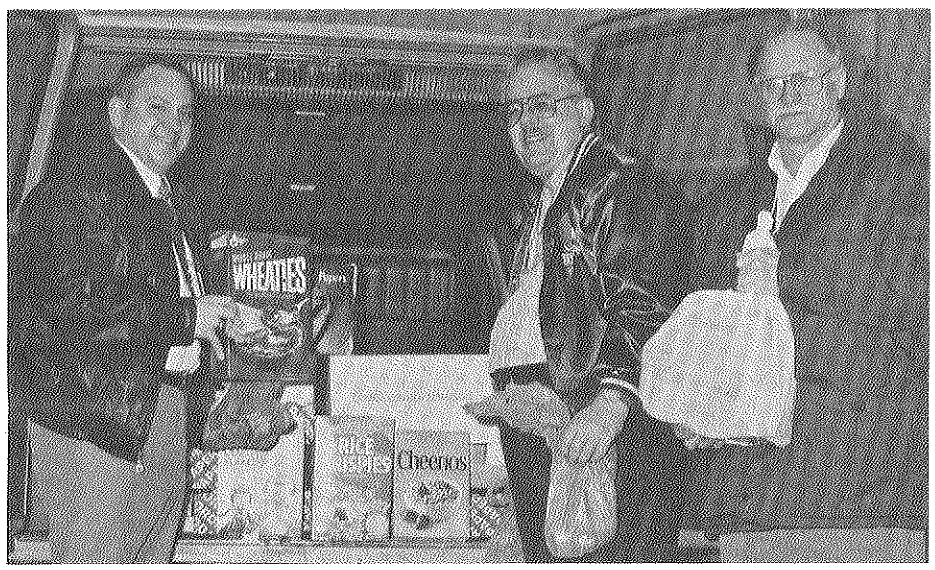
Needy Family Project-Business Management

The 1993 Needy Family Project was a big success for the employees of the Business Management Division. This project included four families with a total of 17 children. The Purchasing and Finance departments began this tradition last year. Those division employees who helped to make this project successful included Judy Mahoney, Vern Blaine, Barry Picklesimer, Patti Trivisonno, Linda Ciraso, Janet Hieneman, Teresa Shisler, Lisa Tidrick, Rick Miller, Vern Blaine, Butch Stall and Perry Herpy. They received additional help from Cindy Blaine (Vern's wife), Lynn Stall (Butch's wife), John Gedeon, the Employee Activities Committee, Duane Rogers and the Plant Values Council.

In addition, plant employees donated clothing (coats, sweaters, shirts, blouses, jeans, shoes, and sleepwear) which was delivered to the children. The Coca-Cola Bottling Company of Portsmouth also donated a case of soft drinks for each family. John Henricks is the Division Manager of Business Management.

Cans for Caring

Another program that was conducted at the plant during the holidays was the "Cans for Caring" project. Barrels were placed at most plantsite portals and administrative building entrances, and employees were encouraged to drop off cans of food and non-perishable items. The Atomic Employees Credit Union also participated in this project through its branch offices with a cash contribution. Numerous cases of canned goods and other non-perishable food items were then delivered to local agencies for distribution. John Gedeon and Duane Rogers served as Co-Chairpersons for this project.



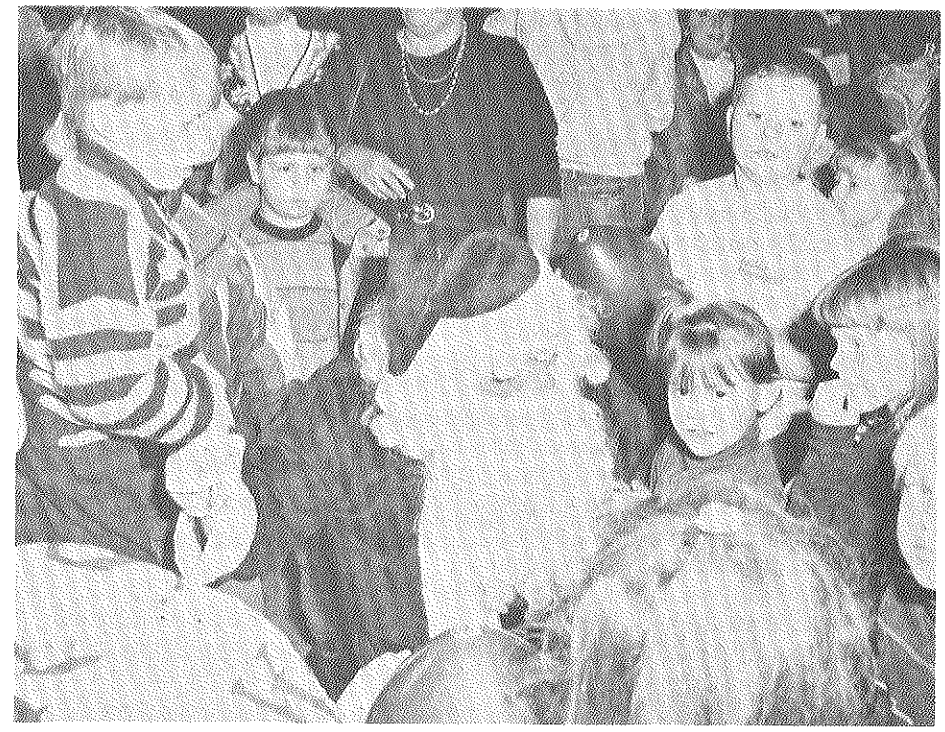
Portsmouth's Plant Manager Dale Allen (left) helps load food items as part of the plant's "Cans for Caring" project during the holidays. Canned goods and other non-perishable items were delivered by plant employees to local agencies for distribution. Also shown are John Gedeon, Coordinator of the plant's Employee Activities Committee, and Duane Rogers, Coordinator of the Plant Values Council. Gedeon and Rogers served as Co-Chairpersons on the project.

Members of the Portsmouth plant's Business Management Division pose with gifts they bought for 17 children from four different families as part of their Needy Family Project. Shown just before the presents were delivered are Vern Blaine, Linda Ciraso, Division Manager John Henricks, Judy Mahoney, Lisa Tidrick, Barry Picklesimer, Scott Howard of Technical Services, Janet Hieneman and Patti Trivisonno.

Cathy Porter (second from left), of the Head Start organization in Ross County, watches as Portsmouth employees Gary Crandall, Tammy Marsh, and Becky Jarrells organize Christmas presents donated by their co-workers. More than 1,000 presents were delivered to needy children in Pike, Scioto, Ross and Jackson counties. Cathy helped to deliver gifts in Ross County.

At left, these children had a merrier Christmas, thanks to people from Paducah's Safety and Health Division. Here, a little boy takes a break from opening presents to give Santa a big hug. His grandfather smiles from his seat while an older sister shows off a gift.

At right, children and grandchildren of Portsmouth employees surround Santa Claus at the annual Children's Christmas Party.



PGDP departments adopt families

"It just makes everyone feel better." That's how Ronnica Smith explained why she and her fellow employees in Paducah's Health Physics Department decided to help families during the holidays. "Because we help these people, we all have a better Christmas ourselves, Smith said.

This was the second year for H.P. to "adopt" families. Smith, along with Donna Lunsford and Karen Jerrell, coordinated the effort. She said the enthusiasm was contagious. "This year we opened our project up to the entire Safety and Health Division," Smith explained, "We were really pleased at the number of people who wanted to be part of this."

Canned goods, toys and cash were collected from those employees who chose to participate and were then distributed to two families selected with the help of the Family Services Agency. Each family included a single working parent with four or more children. Both years, at least one of the children involved were also handicapped. Some of the cash is used to purchase toys and gifts for each family member and to purchase Christmas Dinner, cooked or uncooked, whichever the family prefers. The remainder of the cash is divided between the families. The canned goods were delivered to the families early in the week before Christmas. The gifts and toys are wrapped and delivered, along with the Christmas Dinner, on Christmas Eve.

Employees and their families made the deliveries and, according to Smith, everyone involved is better for the experience. "This gives people a chance to show their children the importance of taking time to help others and the rewards that come with unselfishness," she said.

A special part in that Christmas Eve delivery is played by Ray Carroll. He assumes the role of Santa Claus, personally distributing each child's toys, having taken pains to find out beforehand just what special requests the child had made to Santa. "He does a wonderful job," Smith said. She said Carroll made believers out of children who had long ago decided there was no Santa Claus. "The look on their faces will warm your heart," Smith said.

A thank-you note Smith received from one of the mothers said it best: "The children were so excited, this will be the Christmas that they remember throughout their life. Jenny believes again, any doubt she had is now gone. Deidre never puts her Teddy bear down, and Katrina and Austin enjoyed it so much that they are still talking about it. I just wanted you to know all your kindness is appreciated and will never be forgotten. I hope your holidays were as happy as you've made ours."

H.P. decided to adopt families for the first time last year, following a suggestion by then H.P. Dosimetry manager Orville Cypret. Cypret had recently transferred to Paducah from another facility where he was involved in a similar effort and learned firsthand the benefits of working together to help others. Smith and Jan Keeton organized that project which also helped two families.

The MMES/ERWM Public Affairs Department also adopted a family this year. Department manager Debbie Wattier said her group decided to forego the usual round of interdepartment gift buying and put the time and money normally involved in that toward helping someone else. Their family, a single mother and one child, also received groceries, toys, gifts and Christmas Dinner. "It was a wonderful, positive experience," Wattier said.

Christmas party is successful

Portsmouth's 1993 Children's Christmas Party was again another huge success as hundreds attended the occasion at Waverly High School on December 11. Shirley Walter (Engineering Services) chaired the event, which was sponsored by the Employee Activities Committee.

Ventriloquist Mark Wade served as the entertainment, and Santa Claus also came to listen to all the children's wishes. All workers and volunteers were employees and their families, including Plant Manager Dale Allen and his wife Kate, who helped to pass out toys and sacks of candy to the children.

"Planning for the event began six months in advance," said Walter, "and required numerous requisitions, the coordination of extensive manpower and the completion of so many details." Some of those "details" included 50 pounds of popcorn, 37 boxes of snacks, 265 dozen cookies, 2400 balloons, 39 cylinders of pop and five costumed characters. Several employees gathered two days before the party to put together the 1,200 sacks of candy which they helped to load along with 1,200 gifts for the children.

"We want to thank each and every person who played a part in the very successful 1993 Children's Christmas Party," said EAC Coordinator John Gedeon.

CORRECTION

In the December issue of Uranium Enrichment News, a Portsmouth Honor Guard member who was raising the flag at the Veteran's Day ceremony was incorrectly identified as Police Chief Dan Hupp. The member was actually David L. Bowman of Portsmouth's Police Department and the Honor Guard. We apologize for the mistake.

MMUS Christmas Mementos

During December and January, employees at Paducah and Portsmouth received MMUS Christmas items. Posing with their selections are Portsmouth employees Loetta Legg, Janette Lynch and LeAnn McWhorter.

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