



The Office of Fossil Energy: Striving for Environmental, Security, Safety and Health Excellence

Annual Report Fiscal Year 2005



Office of Environment,
Security, Safety and
Health

Address from the Secretary

January 2006



It is my pleasure to share with you the Office of Fossil Energy's 2005 Annual Report on Environment, Security, Safety and Health. President Bush and I have tasked Fossil Energy with a key role in meeting the energy security needs of this country. Through Fossil Energy's aggressive and innovative research initiatives, such as the Industrial Alliance to build FutureGen, a prototype of the zero-emissions fossil-fueled power plant of the future, and the effective operation of the Strategic Petroleum Reserve, the Northeast Home Heating Oil Reserve, and the Naval Petroleum Reserves, we help ensure a strong energy and economic future for America.

Because we support the Nation's energy security, it is important that we execute our mission in a secure, safe, and environmentally responsible manner. I am pleased to report that Fossil Energy's accident/injury rates remain low, a direct result of their strong commitment to employee safety through workplace inspections, training, and strong hazard identification programs. They are also leading the way in effectively integrating security and safety into daily work activities, and placing a high priority on emergency planning and strong partnerships with local emergency responders. Fossil Energy's environmental legacies continue to be reduced as its remediation efforts have had a high level of success. In addition, the Office has earned prestigious recognition and certifications from external regulators and environmental organizations including: the Occupational Safety

and Health Administration's Voluntary Protection Program; the U.S. Environmental Protection Agency's National Environmental Performance Track; and the International Organization for Standardization 14001.

Once again, FY 2005 was an outstanding year for Fossil Energy, evidenced by its many achievements and accomplishments. The commitment and extraordinary effort of dedicated Fossil Energy management and workers allow us to reach our goals and maximize our potential.

A handwritten signature in black ink that reads "Samuel W. Bodman".

Samuel W. Bodman
Secretary
Department of Energy

A Letter from the Assistant Secretary

January 2006



I am pleased to present to you the Office of Fossil Energy's 2005 Annual Report on Environment, Security, Safety and Health (ESS&H). The Office of Fossil Energy (FE) plays an increasingly important role in ensuring that our Nation's energy needs are met in an environmentally and economically sound fashion. I hope to bring to FE a unique perspective that I have gained from a career of involvement with energy and environmental issues that has spanned three decades. As we move forward, it is important that we learn from our past and understand that the energy industry, fossil energy research, energy technologies, and the related environmental issues are constantly evolving and changing. We at FE have a responsibility to work with both the energy industry and the public to ensure that this Nation has the safest, most reliable, and most environmentally sound ways to use energy. By building on the work that FE has already accomplished, I am confident that we can solve today's challenges, while preparing for the future energy needs of the Nation.

Our dedication to ESS&H is a core value of our business strategy and is an integral part of our daily activities. Our approach to all of our actions at FE is guided by our Office of Fossil Energy Commitment to Environment, Safety, and Health. In this report, I am proud to highlight the significant progress that FE has made toward its ultimate goal of zero accidents. All of FE should take pride in the accomplishments and results achieved this year in performing our mission in a manner that is protective of our workers, the public, and the environment.

In FY 2005, FE continued its enhanced security and emergency preparedness posture, by upgrading the security of our sites' physical facilities, performing security drills, and instituting new badging systems. FE has also increased its training, coordination, and planning efforts with local first responders and law enforcement agencies to ensure that in the event of an emergency we can work seamlessly with our local communities to resolve any issue we face. While security remains a top priority, we are still focused heavily on safety and health issues, and have once again posted low accident rates. Our sites are continually being recognized as superior performers by external organizations, including EPA, OSHA, and the International Organization for Standardization (ISO 14001).

For the year ahead, we plan to build upon our successes. We will continue to seek out opportunities to improve our hazard awareness programs to ensure that potential hazards are quickly identified and eliminated to the extent possible before accidents can occur. We will maintain our ISO 14001 certifications or equivalents, at all of our field sites and we will continue to maintain heightened security at our sites through infrastructure improvements, exercises and drills, and employee training. We will continue to work towards completing the cleanups of our environmental legacies, and ensure that our current projects do not create new environmental liabilities for us in the future.

We invite you to review our performance and would appreciate any suggestions that you may have for improving our ESS&H programs.

A handwritten signature in black ink that reads "Jeffrey D. Jarrett". The signature is written in a cursive style with a large, sweeping initial "J".

Jeffrey D. Jarrett
Assistant Secretary
Office of Fossil Energy



Office of Fossil Energy Commitment to Environment, Safety and Health: FY 2005

We are committed to conducting our mission to achieve the greatest benefit for all our stakeholders, including our employees and the public, while actively adhering to the highest applicable standards for environment, safety and health (ES&H). We will continuously improve our practices through effective integration of ES&H into all facets of work planning and execution. We will make consistent, measurable progress in implementing this Commitment throughout our operations while striving to eliminate injuries, incidents, and environmental releases.

Implement Integrated Safety Management

- We will strengthen our mission by making ES&H an integral part of all mission activities. We will employ the Department's policies on Integrated Safety Management to provide an integrated standards-based approach for the integration of ES&H into all elements of program management.

Strive to Eliminate Injuries and Incidents

- We believe that injuries and occupational illnesses, as well as safety and environmental incidents, are preventable. We will strive to eliminate injuries and incidents, and will establish annual site-specific objectives to drive FE towards this goal.
- Should an incident occur, we will investigate to understand the cause, implement corrective actions, and apply lessons learned to prevent further incidents.
- We will assess the environmental impact of each facility we operate and will design, build, operate and maintain all of our facilities so they are safe and meet all applicable requirements.
- We will be prepared for emergencies and will assist our local communities to improve mutually supportive emergency preparedness capabilities.

Promote Environmental Protection and Pollution Prevention

- We will take all reasonable and responsible actions to prevent environmental releases, giving priority to those that may present the greatest potential risk to health or environment.
- We will reuse and recycle materials to minimize the need for treatment or disposal and to conserve resources. Where waste is generated, it will be handled and disposed of responsibly.
- Where past environmental practices have created conditions that require correction, we will responsibly correct them.

Adopt Highest Applicable Standards of Performance

- We will adhere to the highest standards that are applicable to the safe operation of our facilities and the protection of our workers, the public and the environment in which we operate.

- In addition to compliance with Federal, state and local environmental, safety and health requirements, we will engage in practices tailored to our work and the associated hazards to ensure the necessary protection.
- We will strive to identify all risks associated with work in the planning stage and implement strategies to achieve an acceptable minimum level of risk.

Ensure Management and Employee Accountability

- All FE managers will ensure that policies are in place, clear assignments of authority and accountability are established, and actions taken to achieve this Commitment.
- Compliance with this Commitment and applicable requirements is the responsibility of every Department of Energy employee, contractor and sub-contractor acting on our behalf and a condition of their employment or contract. The goals and expectations will be reflected in contractor incentives and Department of Energy personnel evaluations.
- FE management is responsible to educate, train and motivate employees to understand and comply with this Commitment and applicable requirements.
- We will allocate necessary resources to meet this Commitment and will do so in a manner that strengthens our mission. We will share ES&H expertise and information across programs to ensure cost-effective performance improvement.

Encourage Worker Participation

- Active worker participation is considered essential to meet this Commitment. Workers must be involved in reviewing work activities, identifying associated risks and implementing corrective measures.
- Workers will be given access to ES&H information, encouraged to report unsafe acts without retribution, encouraged to provide input to ES&H policy and to stop work when hazardous conditions or circumstances place workers in imminent danger.

Facilitate Public Participation

- We will have open discussion with our stakeholders on our work and its impacts on their environment, safety and health.
- We will build alliances with governments, policy makers, businesses, professional societies, academic institutions and advocacy groups to develop sound policies and practices that improve environment, safety and health.

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I. Introduction

Strong environmental, security, safety, and health (ESS&H) performance is essential for the Office of Fossil Energy (FE) to successfully achieve its mission of responding to the technological challenges of the nation's energy security needs and environmental initiatives. FE must ensure the highest levels of security at its facilities while providing a safe work environment for all employees. As a Federal agency responsible to the public, FE must be regarded as an exemplary environmental steward by the communities it serves and as a valuable partner in preparing and responding to local emergencies. In addition, FE must meet or exceed industry's highest ESS&H standards in order to continue its successful partnerships with industry leaders on cutting-edge research and development (R&D) projects.

In response to the continuing government-wide mandate to maintain the highest levels of security at strategic government facilities, FE has continued to increase physical security measures to enhance the protection level for FE personnel, property, and sensitive information, and to heighten overall employee security awareness. This emphasis on security functions hand-in-hand with FE's continued commitment to strong and integrated environmental, safety, and health (ES&H) programs, as laid out in the Office of Fossil Energy's Commitment to Environment, Safety, and Health. To that end, FE strives to: integrate ESS&H into all program activities; eliminate injuries and incidents; promote environmental protection and pollution prevention; adopt the highest applicable standards of performance; ensure management and employee accountability; encourage worker participation; and facilitate public participation, while at the same time, ensuring the highest levels of protection for the physical assets of FE sites.

This report summarizes FE's ESS&H performance in fiscal year (FY) 2005 for all sites, namely, FE Headquarters (HQ); the Strategic

Petroleum Reserve (SPR); the National Energy Technology Laboratory (NETL), including the Albany Research Center (ARC); and the Naval Petroleum Reserves, including the Rocky Mountain Oilfield Testing Center (RMOTC). Chapter II highlights key ESS&H accomplishments in FY 2005. Chapter III presents quantitative results of the FE-wide performance for key ES&H performance indicators. Chapter IV outlines planned FY2006 initiatives for continued performance improvement in ESS&H issues.

The FE Sites

The FE workforce includes approximately 2,500 employees, including Federal employees, contractors, and subcontractors. The FE Headquarters offices are in downtown Washington, DC, and in Germantown, Maryland. The organization also has field offices in Morgantown, West Virginia; Pittsburgh, Pennsylvania; Tulsa, Oklahoma; New Orleans, Louisiana; Casper, Wyoming; Bakersfield, California; Albany, Oregon; and Fairbanks, Alaska.



SPR employees working at a Bryan Mound wellhead.

The SPR is a DOE-owned, contractor-operated complex of four field sites that serves as the nation's first line of defense against an interruption in petroleum supplies through its emergency supply of crude oil stored in underground salt dome caverns along the

coastline of the Gulf of Mexico. Headquartered in New Orleans, Louisiana, the Project Management Office (PMO) of SPR oversees the operation and management of the four sites: Bayou Choctaw and West Hackberry in Louisiana, and Bryan Mound and Big Hill in Texas. DynMcDermott serves as the primary contractor for SPR. Today, with the capacity to hold 727 million barrels, the SPR is the largest emergency oil stockpile in the world. Despite sustaining damage during Hurricane Katrina, the SPR successfully delivered millions of barrels of oil from September through December, ensuring that the nation's petroleum and gas needs were met after the nation's worst natural disaster in recent years. In addition, SPR manages the Northeast Home Heating Oil Reserve, established in 2000. This Reserve is comprised of 2 million barrels of emergency fuel oil stored in commercial tank farms in the Northeast, and supplies fuel oil for Northeast homes and businesses should the heavily oil-dependent region be hit by a severe heating oil supply disruption.



NETL's FutureGen project.

NETL is FE's lead R&D center with a primary mission of shaping, funding, and managing external research, development, and demonstration projects; conducting on-site science and technology research; and supporting energy policy development and best business practices within the Department that ensure that U.S. fossil energy resources can meet the increasing demand for affordable energy without compromising the quality of life for future generations. One of DOE's 15 national laboratories, NETL is unique in that it functions as both an in-house science and technology

research center and as an administrator of nearly 700 contracts and financial assistance agreements involving partnerships between DOE and industrial, academic, and other governmental stakeholders. These partnerships result in technologically-significant and commercially-viable technical solutions to energy and environmental problems, and provide economic growth to the local economies near NETL sites. In FY 2005, four of these technologies earned prestigious R&D 100 Awards from R&D 100 Magazine, which awards the 100 most technologically-significant products introduced into the marketplace in the past year.

NETL is responsible for several national high priority environmental and energy security initiatives, including the \$1 billion FutureGen project to develop a pollution-free plant capable of co-producing electricity and hydrogen; the Clean Coal Power Initiative; and the President's Clear Skies, Global Climate Change, and Hydrogen Initiatives. NETL continues to be a long-standing participant in the development and demonstration of fossil fuel-based technologies that can be used to develop flexible, market-based protocols as low-cost solutions for achieving global reduction of greenhouse gas emissions. In addition, in the area of national security, NETL conducts R&D, technology transfer, and training in electricity generation and delivery, fuel processing and storage, and pipeline delivery systems.

NETL has sites located in Morgantown, West Virginia; Pittsburgh, Pennsylvania; Tulsa, Oklahoma; and Fairbanks, Alaska. Recently, the Albany Research Center assimilated into NETL's operations to expand NETL's capabilities to include materials research.

ARC is a DOE-owned and DOE-operated materials research laboratory located in Albany, Oregon. Its mission is to provide solutions that make the nation's energy systems safe, efficient, and secure. For more than half a century, ARC has established recognized expertise and capabilities in materials wear and corrosion, melting and casting, and materials development.

ARC researchers provide analyses and solutions to industrial problems that bridge the gap between laboratory studies and "real world" applications. During FY 2006, ARC will undergo an A-76 Outsourcing Review.



ARC employees are preparing aluminum ingots from an aluminum reverberatory research furnace.

The Naval Petroleum Reserves are oil fields owned by the U.S. Government. Originally established in the early 1900s to provide U.S. naval vessels with an assured source of fuel, the Naval Petroleum Reserves once included three major oil fields. The largest of the original Reserves, the giant Elk Hills Naval Petroleum Reserve #1 field in California, was sold in 1998. Although no longer operated by FE, the office is continuing to fulfill its environmental obligations to remediate any pre-sale contamination created by FE activities. An adjacent field, the Buena Vista Hills Naval Petroleum Reserve #2, is a "checkerboard" pattern of government and

privately owned tracts. Of the 50 tracts owned by the government, nearly 90% are leased by private oil companies.

RMOTC continues to operate the Teapot Dome oil production field (formerly referred to as NPR-3), located near Casper, Wyoming. RMOTC is a Government-owned and operated facility providing a test site for exploration, drilling, and production technology techniques and equipment. Results are made available to the Federal Government, private-sector producers, service companies, equipment manufacturers, and universities. The field test site is a 10,000-acre operating oilfield offering approximately 1,200 well bores and 600 producing wells in 9 producing reservoirs ranging in depth from 500 to 5,000 feet. In addition, RMOTC allows environmental companies to explore ways to prevent and manage environmental risks.



Aerial view of RMOTC Drilling Rig # 1, with a RMOTC workover rig in the background.

II. Highlights of FY 2005 ESS&H Accomplishments

FE identified a number of key corporate-wide ESS&H challenges facing the organization at the conclusion of FY 2004. FE committed to allocating the necessary resources and attention to these issues to ensure continuous improvement in ESS&H programs. This chapter summarizes FE's progress in FY 2005, which has been significant and has built upon successes in FY 2004. The focus has been on:

- Striving for zero accidents.
- Eliminating environmental legacies and maintaining strong environmental and pollution prevention programs.
- Pursuing injury prevention, physical fitness, and employee wellness.
- Protecting workers and meeting DOE security needs.
- Achieving self-assessment and external certification of ES&H programs.
- Fostering a learning organization.

In addition to working toward these goals, SPR faced extraordinary challenges posed by two devastating hurricanes that struck the Gulf Coast in FY 2005. SPR's successful site evacuation, re-entry and resumption of operations, including the exchange and drawdown of over 20 million barrels of SPR crude oil to help prevent a national shortage, stands as a testimony to the strengths of their planning and preparedness activities over the years.

Overall, FE has demonstrated continuous improvements in its commitment to strong ESS&H programs. This year FE completed implementation of the Environmental Management Systems (EMS) at most of its sites. FE sites have put in place strong training and self-assessment programs to ensure that employees recognize ESS&H hazards and

respond appropriately, and continue to place a high priority on emergency planning activities.

Striving for "Zero" Accidents

FE has continued to work toward its goal of zero accidents and injuries in the workplace. An analysis of accidents and injuries over the past few years suggested that the failure of employees to recognize and control workplace hazards were most often the cause of incurred accidents. As a result, FE has instituted several different programs to address this finding, including:

- Instituting aggressive hazard recognition programs to help employees identify potential problems in their work areas.
- Creating initiatives and incentives to encourage employees to take responsibility and accountability for their health and safety.
- Launching programs for reporting and acting on near misses to ensure that potential hazards are identified and controlled before injury occurs.
- Continuing to improve FE's infrastructure and site conditions to eliminate or reduce risks to employees and the environment that stem from how these facilities were originally constructed versus how they are used today.



An NETL Safety Engineer looks on as one of four wastewater tanks is removed from Building 17 for safe transport to lay-down area.

The analysis of accidents and incidents in FY 2005 suggests positive results from these initiatives, as evidenced by a continued downward trend in accident and injury rates at FE sites. In addition, the accidents and incidents that did occur were generally the result of equipment failure rather than human error. FE sites have put in place a number of new programs and bolstered existing programs that have contributed to these improvements in performance.

SPR has expanded an already strong behavioral safety program to help employees recognize hazards and apply strategies to reduce them with two new programs. The first is the expansion of its pilot "Close Calls Program" to all Federal, Management and Operation (M&O) contractor employees, and Protective Services contractor employees at all sites. The program provides employees with multiple avenues to report close calls, including online, by phone, in person, or by mail. Additionally, reports can be filed anonymously. Anyone who reports a close call will get feedback on the solution so that the hazards can be controlled before they cause harm. For feedback on anonymous reports, an article is run in the company newspaper each month that lists the items reported and actions taken.



SPR and contractor managers attend the annual SPR Safety Summit in May 2005 at the West Hackberry site.

The second program is the Workover Rig Job Hazard Assessments Review and Revisions

program, which identifies recommendations for improving worker safety for one of SPR's most hazardous jobs. SPR is proud to report that the workover rig operated with zero recordable injuries this year. In addition to these two programs, SPR published 1,094 new Process Hazard Assessment recommendations, which identify hazard controls before the identified hazard can cause an accident or injury. Over 186 of the recommendations have been closed out to date. Lastly, several staff members have received training in human performance improvement theory and techniques that will be integrated into the behavioral safety programs.



RMOTC Employee Dan Kelly paints a number on a storage tank as part of the RMOTC SPCC Plan Tank Numbering System.

RMOTC utilizes various employee committees to review incidents, which has resulted in improvements to the reporting and investigative process due to line staff involvement. ARC has launched an Incident Tracking System, along with empowering key employees with hands-on root-cause training to ensure that employees have the tools to report incidents and ARC has the information it needs to find solutions to potential hazards.

NETL employs a strong team approach to identifying hazards. NETL is piloting a program with one of its site-support contractors where a team of first-line supervisors and employees conduct on-site inspections to identify near misses and then jointly develop corrective

actions. The team approach promotes responsibility and accountability among both supervisors and employees for a safe work environment. NETL's site support contractors sponsored a "Supervisor Training in Accident Reduction Techniques (START)" course for managers and line supervisors that emphasized behavior modification techniques. These activities have led to a reduction in recordable injuries for the site-support contractor.

Improvements to sites' infrastructure and facility conditions continued to be a high priority to reduce the risks to employees at some of the sites. NETL completed the removal or encapsulation of asbestos from buildings and ventilation systems to reduce the site-wide risk of potential exposure to asbestos. NETL also has a contract in place to upgrade and automate the wastewater treatment facility at the Pittsburgh site to prevent exceeding regulated discharge levels. NETL has also initiated a replacement program for its older and less accurate hazardous gas monitoring and alarm systems.



New acid/base enclosures installed at NETL-Morgantown clarifier improve worker safety and reduce the likelihood of spills.

FE Sites are Eliminating Environmental Legacies through Cleanup Activities and Strong Pollution Prevention Programs

As a result of decades of R&D operations, residual environmental contamination exists at several onsite and offsite locations. FE sites are

employing innovative cleanup technologies and approaches as part of its commitment to reduce FE's environmental footprint and minimize, to the maximum extent possible, the potential for future liabilities from these past activities.



NETL Staff remove flocculent from around the outside of the Equalization Tank at NETL-Pittsburgh for disposal.

In addition to cleanup actions, FE is working hard to ensure that leading edge environmental management and pollution prevention programs minimize the potential that current operations will create future environmental legacies. Demonstrating exemplary environmental stewardship to neighboring communities and business partners is one of FE's core values and business propositions. To that end, SPR recently issued an Environmental Policy Statement confirming its commitment to the goal of environmental protection for all Project Management Office (PMO) activities, including management and oversight of contractors and decision making for concept, design, development, construction, operations, and decommissioning. Under this environmental policy, SPR will ensure regulatory compliance, pollution prevention, and continual improvement of the EMS and environmental performance.

As examples of FE's progress in cleanup, NETL has completed BTEX (benzene, toluene, ethylbenzene, and xylenes – common gasoline constituents) contaminant removal to state regulatory requirement levels at the Hoe Creek II Underground Coal Gasification Site. NETL used an innovative approach to this groundwater

clean up – an air-sparged, aerobic bioremediation system. The new approach accomplished the clean up quicker and at lower cost than conventional pump-and-treat systems. NETL has plugged over 80 of the 300 monitoring wells and continues to monitor the groundwater and the vegetative cover. NETL will maintain the vegetative cover for 10 years prior to the final release from the terms of their R&D license and reclamation performance bond.

NETL also closed out all environmental requirements for the Rocky Mountain I Underground Coal Gasification Site and was released from the obligations of its reclamation performance bond by the Wyoming State regulatory agency. Air sparge operations at Site 4 of the Rock Springs Oil Shale Retort and Remediation Site were completed and replaced by long-term site monitoring. Approximately 3,300 thousand gallons of groundwater have been pumped from the center of the site in an attempt to control subsurface airflow and reduce hydrostatic pressure. Observations indicate that reducing hydraulic pressure at the center of the site significantly increases gas venting within the site and should reduce fugitive gas flow away from the site.



NETL employees install monitor well for ground water at Rock Springs field site.

At the Rock Springs Oil Shale Retort and Remediation Site 12, the sampling results indicate that the levels of hydrocarbon contaminants have been reduced by more than 90 percent. In order to aid and enhance benzene

degradation, NETL has implemented bio-augmentation using anaerobic bacteria to assist in remediation. In addition, sulfur and methane degrading bacterial populations were augmented with additional carbon sources to increase degradation efficiency of BTEX compounds. The goal of these procedures is to eliminate 10 to 15 percent of contaminants, while saving personnel, time, and money since these procedures will reduce the need for using active and costly groundwater remediation.

At the St. James SPR site (currently leased to Shell Oil), FE is working to meet the Louisiana Department of Natural Resources requirement that there be three consecutive quarterly soil samples that meet the established criteria before they will concur that FE has successfully remediated the site of a small oil spill. To date, St. James has had two consecutive monitoring rounds that have met the criteria. The agency-required third round will happen in the first quarter of FY 2006, and SPR expects to close out the cleanup activities.



Strategic Petroleum Reserve representatives accept the National Association of Environmental Professionals Environmental Excellence Award for Best Environmental Technology. Pictured from left to right: John Shages, DOE, SPR Deputy Assistant Secretary for Petroleum Reserves; William Bozzo, DynMcDermott, Environmental Manager; Gary Kelman, President, National Association of Environmental Professionals.

In FY 2005, ARC focused its efforts and resources on two key activities addressing potential contamination attributable to legacy

operations while the site was operated by the Bureau of Mines: onsite and offsite groundwater monitoring and analysis of onsite beryllium contamination. ARC has been continuing low stress groundwater sampling both onsite and offsite. This technique improves the accuracy of sampling and is more cost-effective than traditional methods. During FY 2005, ARC determined that the extent of potential groundwater contamination was larger than originally expected. Supported by FE-7 and other DOE HQ support, ARC has worked closely with the Oregon Department of Environmental Quality (DEQ) to create a plan for groundwater investigation and remediation at this site. ARC is also working closely with the local community to address any concerns they may have about the investigation and remediation activities through a series of town meetings. ARC has also tested the volatility and mobility of the contamination in the soils to be sure that there is no exposure at an adjacent school property. As of yet, no exposure pathways have been identified at the school property. However, sampling of adjacent residential wells west of the ARC property by Oregon DEQ has shown the possibility for aquifer impact by previous ARC activities.



Contractors representing ARC perform groundwater sampling at the nearby Liberty Elementary School.

Legacy beryllium has been identified using surface wipe samples at a number of locations at the ARC site. However, no significant airborne beryllium contamination (which is the primary exposure concern) has been identified. ARC is actively investigating the extent of contamination.

Phase 1 of a site-wide survey has been completed, and ARC is currently engaged in Phase II. ARC has developed and distributed a site-wide Beryllium Policy, standard operating procedures and job hazard analysis worksheets, in addition to engineering and management controls to regulate potential exposure in identified areas.

RMOTC has a number of ongoing projects to reduce its environmental legacies. Currently, RMOTC is engaged in the close-out of its Industrial Solid Waste Disposal Facility in Wyoming and has hired a technical expert to assist in answering any State Department of Environmental Quality concerns. RMOTC has also submitted a wetlands delineation report to the U.S. Army Corps of Engineers and is awaiting their approval. RMOTC anticipates beginning restoration on identified areas by FY 2007 as more funding becomes available.



RMOTC employees Rick McLaughlin, Darwin Hoffer, and Kevin Greene prepare to replace a flowline at well 56 Lx 3.

NPRC is continuing to fulfill its environmental cleanup obligations as specified under the terms of the sales agreements between DOE, Occidental, and ChevronTexaco. DOE is working closely with the California EPA's Department of Toxic Substances Control on this multi-year project. The agreements require DOE to conduct a comprehensive environmental assessment of NPR-1 and remediate any identified presale contamination. DOE has completed limited

archaeological data recovery at NPR-1, and is in the process of releasing the results of this effort to the public. Three large landfills at NPR-1 have been included, and the DOE/Army Corps of Engineer interagency agreement, planning, and procurement activities are in progress. FE hopes that these activities will lead to the regulatory closure of these landfills.

NPR-2 which was formerly administered by NPRC, was transferred to the Bureau of Land Management in September 2005 as part of the President's Energy Bill.



Pictured is a high temperature aluminum furnace at ARC.

Given the significant funding that is required to address contamination caused by past practices, FE recognizes the environmental benefits and the potential cost savings that can be realized from strong pollution prevention and energy efficiency programs. All FE sites met or exceeded DOE's pollution prevention and energy-efficiency goals through strong waste management, recycling, affirmative procurement, and energy-efficiency programs, often using innovative approaches and best practices. These sites regularly conduct Pollution Prevention Opportunity Assessments (P2OAs) to identify ways to reduce the amount of wastes they must manage.

For example, NETL includes an annual P2OA requirement in the site support contractor's Statement of Work. In part in response to recommendations from a P2OA this past year, NETL has changed its standard operating

procedure for draining the sump area near the NETL Morgantown acid and base tanks to make the process user-friendly and to reduce the risk of an environmental release as a result of human error or equipment failure.

NETL is also investigating options for reducing the quantity of sludge generated by the laboratory/process wastewater treatment procedure after a P2OA was conducted on six major waste streams that comprise 96 percent of the site's sanitary waste. In addition, NETL is upgrading and automating the wastewater treatment facility at NETL-Pittsburgh to avoid exceeding regulated discharge levels. The upgrades will include new plant process sensors, monitoring capability, and installation of a pH tank and basket strainer. The goal is to have the upgrades complete by December 2006.

ARC has made substantial progress in reducing the amount of hazardous chemicals on site. In July, ARC conducted a Chemical Stand Down and successfully identified and removed the amounts of cadmium, ozone depleting substances, beryllium, arsenic, low level radioactive materials, and other hazardous substances onsite to negligible/minimal levels.



ARC ground water Program Manager, Steve Curfman, oversees the drilling rig during a ground water investigation.

All FE sites have extensive recycling/reuse and affirmative procurement programs. For example, SPR recycled 88 percent of its wastes across all facilities for 2005. RMOTC has continued to

evaluate its recycling/P2 program to reduce the amount of sanitary waste and to maintain its hazardous waste generation at zero. NETL implemented a 6-month recyclable sorting pilot program to increase the amount of recyclables generated by office cleanouts. Between mid-March 2005 and September 2005, 25,000 pounds of recyclable materials were directed from the NETL–Pittsburgh sanitary waste stream to the recycled stream. Due to the highly successful pilot, the requirement has been incorporated into the site support contractor’s Statement of Work.



An SSC technician disconnects spreader bar from wastewater tank to make way for new R&D project at NETL-Morgantown.

FE’s sites have employed a number of innovative approaches that contribute to pollution prevention and energy efficiency goals. For example, ARC is replacing four propane-powered lift trucks for electric-powered ones in order to reduce air emissions, increase energy efficiency, and minimize the hazards associated with propane tank storage. SPR replaced its lighting systems with energy efficient ballasts that both improve energy efficiency and eliminate the use of mercury bulbs. This “green” retrofit project reduced the waste stream by nearly 50 percent, increased mercury-containing product recycling, and resulted in a cost savings of \$228,000 over a three year period. RMOTC has formed an Energy Management Team to identify opportunities for the site to reduce its energy consumption.

In FY 2005, SPR conducted a Leadership in Environmental and Energy Design (LEED) Green Building analysis to determine the direction and potential for including sustainable elements in the design and renovation of a building at Big Hill. The resulting construction contract will incorporate these recommendations.

Pursuing Injury Prevention, Physical Fitness, and Employee Wellness

FE recognizes that improved overall health and fitness can decrease the chance of injury and the severity of an injury, should it occur. Enhanced fitness can help to minimize cumulative trauma disorders to the back, neck, knees, and shoulders, which typically comprise the majority of all workers’ injuries, workers’ compensation costs, and lost work time. Expanding existing worksite fitness programs, integrating employee wellness initiatives into day-to-day activities, and increasing employees’ knowledge about fitness and health is creating a more fit and productive workforce.



Cardio class for the “Body-for-Life” Program at NETL.

FE HQ and all field sites have well-established employee wellness programs targeted to the needs and interests of their workforce. For example, RMOTC provides: (1) hands-on training for back safety, (2) training by a registered physical therapist on ergonomics, and (3) off-the-job physical fitness programs such as volleyball, basketball, racquetball, and personal training.

ARC conducted computer based ergonomics training followed by self-assessments and individual evaluations to help employees improve their workstation environment. Employees at ARC can take advantage of yoga classes and an onsite physical fitness center. While the fitness center was closed for part of 2005, employees were offered memberships at a local fitness facility. ARC has also awarded a contract for ongoing medical monitoring for its employees.

NETL established a Wellness Committee to coordinate and promote wellness-related activities across the Laboratory. NETL recently conducted an employee wellness survey, which led to the introduction of new wellness programs aimed at increasing the quality of health of NETL employees. NETL has seen an increase in participation rate in its wellness programs as a result of these new programs and increased publicity.



NETL employees participate in a resistance class for the "Body-for-Life" Program.

SPR conducted a comfort survey to identify potential workstation problems and follow-up actions to prevent employee injuries. SPR also instituted a program to encourage walking and issued pedometers to employees. To facilitate access to wellness information, SPR established an electronic monthly newsletter that focuses on education on common health and wellness issues that may affect an individual's mental or physical health and productivity, and is collaborating with a local hospital to offer online wellness information each month.

Protecting our Workers, Meeting DOE Security Needs, and Emergency Response

Since September 11, 2001 FE has had a lead role in R&D programs to enhance the nation's security. In addition, protecting FE workers and the surrounding communities has been a high priority for the program. Over the past several years, FE has upgraded the security and protection of its facility infrastructure and built up security and emergency management programs. Currently, FE is focused on: rigorously training employees and enhancing their awareness of the importance of security; expanding available exercise programs; establishing strong partnerships with local first responders and other emergency personnel; and continuing to enhance security/emergency management infrastructure (e.g., improved access controls).



Members of the Management Emergency Response Team staff the NETL Emergency Operations Center during a 2005 site wide exercise.

This year's two devastating hurricanes provided SPR with a unique opportunity to evaluate its emergency response capabilities and accumulate lessons learned for FE as well as for the rest of the DOE community. SPR was extremely successful in safely evacuating its employees, preparing the site for hurricane-ready mode, and executing re-entry after the storms. SPR was able to account for all its employees from the Emergency Operations Center (EOC), to maintain a current contact list throughout the crisis, and find temporary living quarters for those employees that needed to

return to the site to resume operations, including the exchange and drawdown of over 20 million barrels of SPR crude oil. Throughout the emergency, although all New Orleans personnel were evacuated and operational infrastructure was compromised, payroll and expenses were on time; primary computer systems needed for drawdown and exchange activities were available; emergency communication channels were open; there were functional operating nodes; and environmental requirements were still met. All employees were given access to a "SharePoint" website, which was set up by SPR to get key information to employees working the hurricane response.

FE HQ coordinated training and exercises for emergency responders and employees; developed and exercised the HQ Continuity of Operations (COOP) plan; conducted fire drills and evacuations; and assisted SPR hurricane response and recovery efforts by coordinating getting a Security and Emergency Response Mobile command Unit for SPRPMO personnel to use from the NNSA Pantex Plant weapons site.



Members of the NETL Emergency Medical Team assess a patient extracted from a confined space during the 2005 site-wide exercise.

All FE field sites have extensive training and exercise programs and well established partnerships with their local emergency responders. For example, SPR's Emergency Response Team (ERT) attended Louisiana State University for their requalification exam, which

this year included certification to the National Fire Protection Association 1081 standard for advanced exterior fire fighting. Over 96 percent of the ERT members passed the incipient and advanced exterior fire fighting exams. SPR also conducted several drills and exercises at all of its sites, and expanded its Security Exercise Program to include participation of mutual aid organizations, Local Law Enforcement Agencies, and on-site ERT members. This past year, SPR expanded one of its exercises to include the identification and response to Weapons of Mass Destruction with participation by multiple outside local law enforcement and emergency response organizations. SPR also enhanced a web-based employee newsletter called "The Esprit" which has monthly articles regarding security at SPR and nationwide which helps its employees take more responsibility for security at the sites.



NETL HAZMAT/Rescue technician Joe Flanagan reports his findings to the incident commander upon exploration of a confined space during the 2005 site-wide exercise.

NETL's Emergency Preparedness and Response Program conducted two site-wide exercises and one no-notice exercise conducted by DOE Headquarters. Also, NETL successfully completed the biannual Safeguards and Security Periodic Survey at both the Morgantown and Pittsburgh sites, improved its rating from marginal to satisfactory, and went from having 27 findings to only 2.

ARC continues to maintain strong partnerships with the local emergency response organizations

and school districts to share equipment and labor resources in the event of an emergency, and signed a formal Mutual Aid Agreement with the Greater Albany Public School District, which covers offsite evacuation support.

RMOTC's exercises this past year included Basic Emergency Care (BEC) Mini Drills, a confined space rescue drill, and a full-scale, field-wide exercise involving a simulated spill/release into a waterway. RMOTC also strengthened its relationships with local emergency responders, law enforcement, and hospitals to share equipment and labor resources in the event of an emergency.



RMOTC Employees Mary Allemand and Brian Whitaker provide medical assistance to "victims" Kevin Greene and Eric Enloe during a simulated confined space entry drill.

FE sites have also continued to strengthen the physical security of their facilities and to employ new technology. At ARC, a comprehensive Access Control Policy was written and signed by Center management. NETL concluded a pilot program for upgrading its shelter-in-place capabilities, which resulted in the consolidation of the electronic systems to enable the HVAC systems to be shut down from one central location. NETL also improved or installed new facility access control and surveillance equipment to allow improved control of site assets including its chemical storage areas; installed access control and intrusion detection equipment in the site's computer operations

facilities; and gained approval for and began operating a classified facility.



Jeff Buterbaugh, Dave Westhead, Gary Stiegel, Jr., and Pam Barrett, Scene Emergency Response Team (SERT) members, participate in the NETL decontamination drill in August, 2005.

RMOTC continued its infrastructure improvements by replacing keyed security padlocks with changeable combination padlocks. SPR has tested the use of air-to-ground photography to aid in planning responses to events and in communicating the extent of the event to the Emergency Operations Center, New Orleans Emergency Management Team and DOE HQ.

Achieving Self-Assessment and External Certification of ESS&H Programs

Establishing and maintaining rigorous assessment programs provide confidence that FE sites are achieving their ESS&H goals and are continuing to actively pursue opportunities for continuous improvement. Third-party certifications and external recognition programs demonstrate FE's commitment to ESS&H programs that go beyond compliance and incorporate best available practices. Pursuing these certifications also allows FE sites to have independent experts validate and certify that management systems meet applicable laws and regulations and gain insights on implementing best practices. Receiving external recognition

and prestigious awards in ESS&H bolsters employees' morale by recognizing their invaluable contributions to strong performance, and also serves to enhance FE's reputation with customers, local communities, and business partners by implementing model ESS&H programs. Again, in FY 2005, FE has continued to execute strong self-assessment programs. The office is also a leader within the Department and is recognized nationally for its model ESS&H programs.

All sites have well established self-assessment programs. NETL conducts monthly management ES&H walkthroughs at the Pittsburgh and Morgantown sites. SPR conducts an internal monthly assessment of environmental, safety, and health performance metrics and a quarterly self-assessment of overall environmental, safety, and health performance. In addition, SPR had Contractor Organizational Assessments and DOE Management Appraisals of key elements of the environmental, safety, and health programs. ARC conducts semi-annual internal audits of the Albany Research Center Management System and quarterly Safety Inspections, and conducts periodic equipment inspections. RMOTC, with support from NETL and FE HQ, conducted an EMS audit and a self-certification assessment as well as other self-assessments of its ESS&H program.

All FE sites have fully implemented their EMS as required by the Department. Three sites – NETL, SPR, and ARC – are ISO 14001 certified. NETL maintained its ISO 14001 certification and has successfully completed a gap analysis against the updated ISO 14001 standard revised EMS documentation. NETL has also provided employee training on the new standard. Through these actions, NETL has completed all requirements to maintain its certification after May 2006. In addition, NETL had three independent assessments of its Hazard Communications Program, Waste Management Program, and R&D SARS program, which produced overall positive evaluations. SPR began its sixth year of the ISO 14001 EMS third-

party certification of management and operation at five of its sites; its sixth facility, the Stennis Warehousing facility, achieved third party certification of its EMS in 2005. ARC also achieved external ISO 14001 certification during FY 2005.



The SPR Big Hill and Bryan Mound sites receive the first two National Leader Certifications granted by the Texas Commission on Environmental Quality. Pictured left to right: Tim Lewis, DM, Big Hill, Site Director; Allen Fruge, DOE, Big Hill, Sr. Site Representative; Jorge Aguinaga, Bryan Mound, Sr. Site Representative; Dick McCalla, DM, Bryan Mound, Site Director; William "Hoot" Gibson, DOE, SPR Project Manager; William Bozzo, DM, Environmental Manager; Israel Anderson, TCEQ Director, Small Business and Environmental Assistance.

SPR continues to be a leader in the Department by having both OSHA and DOE Voluntary Protection Program (VPP) certifications. All four of the SPR sites are considered Star facilities and are recognized as going "above and beyond" VPP's stringent requirements. They all have received awards from both OSHA Region VI and DOE, which are given to sites with accident rates at least 50 percent below the average for their industrial classification code. Big Hill received the Star among Stars award, Bayou Choctaw and West Hackberry received Superstar Awards, and Bryan Mound received the Star of Excellence Award from OSHA Region VI. DOE's VPP program awarded three SPR sites the Star of Excellence Awards, and Big Hill received the Superior Star Award from DOE. Bayou Choctaw, Big Hill, Bryan Mound, New Orleans, and West Hackberry all successfully maintained their National Environmental

Performance Track Charter Membership status for the fifth year in a row. In addition, Bryan Mound and Big Hill were named National Leaders in the Clean Texas Cleaner World Program, a state program paralleling the Performance Track program.

In addition, Secretary of Energy Samuel Bodman was proud to announce that DynMcDermott Petroleum Operations Company, operator of the nation's Strategic Petroleum Reserve, is a 2005 recipient of the Malcolm Baldrige National Quality Award, which will be presented by President Bush in January 2006. The Malcolm Baldrige Award is the nation's highest Presidential honor for quality and organizational excellence. In addition, Secretary of Energy Samuel Bodman awarded SPR the highest honorary award of the Department of Energy, the Secretary's Gold Medal, for outstanding achievement in energy security under the extreme conditions after Hurricane Katrina.



SPR receives a P2 Star Award for 2005. Pictured left to right: John Shaw, Assistant Secretary, Environment, Safety & Health, and John Shages, DOE, SPR Deputy Assistant Secretary for Petroleum Reserves.

FE sites have won many other public and private sector awards for ESS&H performance. Among these, in FY 2005 NETL was the recipient of the National Safety Council Green Cross Award for Outstanding Safety Performance. The NETL–Pittsburgh site has won it for the ninth consecutive year. NETL also received DOE's P2 Award for its promotion of alternate fuels in its operations. SPR's DOE awards include: DOE's

HQ Star award, the DOE-wide Best in Class P2 award for its project to degas crude oil to reduce emissions from customer facilities, and the FEMP (Federal Energy Management Programs) Retrofit Project Initiative at Bayou Choctaw. SPR also received awards from the Louisiana Quality Foundation for Environmental Management Excellence at all three Louisiana facilities; Honorable Mention in the White House Closing the Circle Award for preventing downstream emissions through sustainable product stewardship; NAEP National Environmental Excellence Award for Best Environmental Technology; and the Louisiana Governor's Environmental Leadership Award for a mercury lamp reduction program.



Louisiana Governor's Environmental Leadership Awards Program, August 2005. Pictured left to right: William Vierling, DOE, SPR, Director, ESH&Q Division; Teresa Heaton, DM Pollution Prevention Specialist; Dr. Mike McDaniel, Secretary, LDEQ; Kathleen Blanco, Governor of Louisiana; Patricia Kuntz, DM Waste Management Specialist; and Dr. Brent Smith, DOE, SPR Environmental Specialist.

Fostering a Learning Organization

A key strategy for increasing efficiency and reducing costs, while achieving FE's ESS&H performance goals, is to supplement site-specific expertise with ideas and expertise from others in FE, other Department programs, academia, and the private sector. In addition, instilling a culture of continuous learning and focusing on practical and applied learning is an essential element for improving overall performance. Finally, information exchange is an essential part of

succession planning, which is a critical need with the maturing workforce.



Excellence in ESS&H Award Committee. Pictured left to right: Jay Braitsch, John Shages, Robert Pafe, Mike Jacobs, Connie Lorenz, Darren Mollot, and Guido DeHoratiis.

FE HQ continued to support shared learning among its sites through sponsoring the 11th annual Excellence in ESS&H Award, showcasing best practices in the FE organization. The Excellence Award program provides a forum for sharing innovative best practices FE-wide. In addition, the program recognizes individuals or teams who have significantly improved the efficiency, improved the quality, and reduced the costs of FE's ESS&H programs.



2005 DOE-FE ESS&H Excellence Award to SPR. Pictured left to right: William Vierling, DOE, Dir., ESH&Q Div.; William "Hoot" Gibson, DOE, SPR Project Manager; Rosella Mayeux, DOE, Safety; Will Woods, DOE, Safety; Dr. Kirkland Jones, DM, Dir., ES&H; Robert Keen, DM, IH.

To date, more than \$100 million in cost savings has been associated with the nominated projects. The winners of this year's award were: SPR, for its implementation of a "Close Call"

Reporting System and NETL for its accomplishment in Air Sparge/Bioremediation System for FE Research and Development Site Clean-up.



2005 DOE-FE ESS&H Excellence Award to NETL. Pictured left to right: Roy G. Spears, Program Manager, Environmental Remediation, NETL and Carl O. Bauer, Director, NETL.

Employee training continues to be a high priority for FE to ensure it operates as a "learning organization" and that all employees are fully aware of the hazards in their workplace and ways that they can reduce the risks of accidents. Many training activities were accomplished in FY 2005.

In the field, training efforts focused on a broader array of ESS&H topics, as well as improvements in the delivery of training. Since FE views training as the key to preventing accidents, sites have extensive training programs and have been working to create learning cultures, in which their employees are constantly engaged in some type of learning event ranging from a traditional instructor-led course to group meetings to discussions around lessons learned.

NETL continues to expand its curriculum of courses for its employees as well as the learning pathways to receive the training. NETL added a number of courses on equipment training and electrical personal protective equipment (PPE). In addition to traditional instructor-led training, NETL launched 14 computer based training (CBT) modules to enhance worker performance related to environment, safety, security, and health. NETL has also upgraded its

computerized systems so that employees and supervisors can more readily view their training status and gain electronic access to more information related to ES&H (e.g., ES&H Job Hazard Survey).

At ARC, training is integrated into overall site operations. For example, in July 2005, ARC conducted a Chemical Stand Down to identify and dispose of hazardous substances (i.e., cadmium, ozone depleting substances, beryllium, arsenic, and low level radioactive materials).



Chemicals are sorted during ARC's Chemical Stand Down. Pictured left to right: Neil Duttlinger, Bill Riley, Joe Tylczak, and Paul Jablonski.

ARC used this activity as an opportunity to simultaneously train its employees on how to handle chemicals in a safe manner. ARC also implemented site-wide training for CSUITE, a training management software that stores site-wide chemical inventory and standard operating procedures. ARC has also engaged in root cause training of key personnel as a part of its Incident Reporting System prevention activities, which aim to give employees the skills and knowledge they need to avoid accidents by altering their behavior during their jobs.

At SPR, training and fostering a learning organization are seen as fundamental skills and the key to SPR being effective and efficient. SPR's emphasis on the importance of being a learning organization and engaging in preemptive behavioral safety training was shown to be an extremely useful asset to SPR in the

face of the challenges of the recent hurricanes. The success SPR had in these emergencies was in large part because its employees were well-trained on day-to-day and emergency procedures.

In FY 2005, several members of the SPR environmental, safety, and health staff attended training in human performance improvement theory and techniques. These train-the-trainer sessions led to additional learning events at SPR, which have resulted in improved accident investigations, operations, and maintenance processes, and the behavioral process to add awareness of human behavior and how to control for error-causing scenarios. SPR is working toward a standard approach for training its trainers in Human Performance Improvement and is in the process of interweaving this methodology into its existing operations.

This year the SPR operations contractor also developed Individual Development Plans (IDPs) for each employee. The plans look at the whole course of an employee's career and provide for specific training to accomplish their goals.



Students from Natrona County High School dissect fish at the RMOTC Science Center. The fish were raised at the Center, using water from oil producing formations at RMOTC.

RMOTC's training activities also emphasize hands-on practical applications, such as electrical switchgear training and hydrogen sulfide awareness training. RMOTC integrates training with its EMS implementation and ISM integration, security measures, and identifying

and protecting official use only information. One of RMOTC's strategic goals is to become an industry center for research, ESS&H programs, and cutting edge oilfield technology. RMOTC is using its training and learning events to help reach that goal by demonstrating its strong learning culture. For example, RMOTC Drilling Rig #1 has been used to train local oil and gas industry workers, and the RMOTC Science Center provides on-site community outreach training for K-12 students in earth and biological sciences. Additionally, RMOTC plans to launch a "Center of Excellence" to demonstrate the latest technology, best industry practices, and "green" oilfield practices.



The crew of RMOTC Drilling Rig #1 celebrate the initial rig-up (the drilling rig was purchased new in FY 2005) that was performed with no incidents.

III. Summary of ES&H Performance

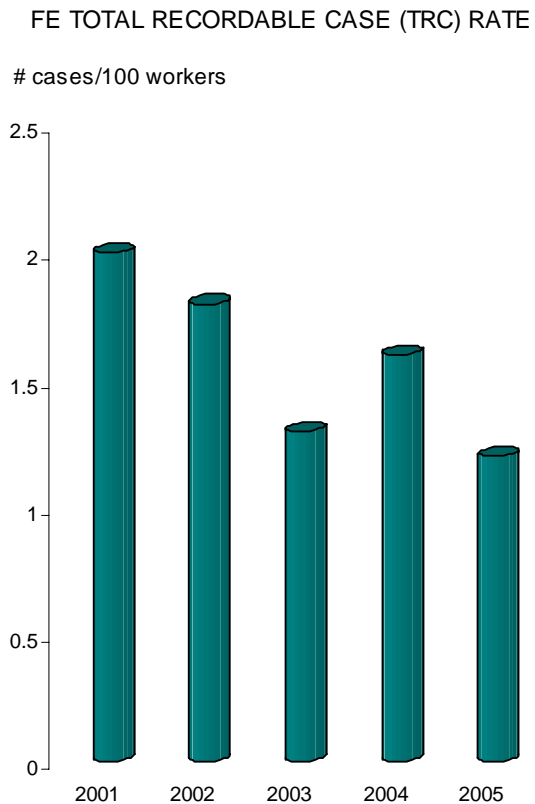
Over the past several years FE has been working to make consistent, measurable progress toward eliminating injuries, illnesses, and environmental releases, while staying committed to its national energy security mission. This section demonstrates the progress made in FY 2005 in improving FE-wide ES&H performance using results from key quantitative ES&H indicators. Data related to FE's and DOE's safety and health performance represent all workers, including Federal employees, contractors, and subcontractors, where available. Safety and health data were obtained from DOE's Computerized Accident/Incident Reporting System (CAIRS). Data on operational occurrences, environmental releases, and regulatory violations were obtained from DOE's Occurrence Reporting Processing System (ORPS); data on affirmative procurement and hazardous and sanitary wastes generation were obtained directly from FE sites. Appendix A summarizes site-specific ES&H quantitative performance information, including comparisons of FE performance to DOE overall and to DOE VPP sites.

Total Recordable Injuries and Illnesses Rate Reduced to 5-Year Low

The Total Recordable Case (TRC) rate includes injuries and illnesses incurred by Federal and contractor employees that are serious enough to result in medical attention, loss of consciousness, restriction of work activity, or time away from work. In FY 2005, the TRC rate for FE was 1.2, the lowest in 5 years. This rate represents a 25 percent reduction from FY 2004 and exceeds the FY 2005 ES&H performance target of a TRC rate of 1.25 or less. FE's TRC rate is also relatively low when compared to the DOE-wide TRC of 1.5. In addition, the actual number of accidents at FE went down from 38 in FY 2004 to 26 in FY 2005.

The TRC rate accounts for the number of injuries and illnesses that occur in a given year, normalized for the hours worked at all FE sites. The basis for this normalization is 200,000 hours worked, which is equivalent to the number of hours worked by 100 workers in a year. This year's rate of 1.2 means that only 12 of every 1,000 workers were injured at work or had a work-related illness.

Figure 1



Number of injury and illness cases per 100 workers

Source: Computerized Accident/Incident Reporting System

Most of the sites either maintained their zero TRC rate from last year or improved their performance. ARC once again posted a TRC rate of 0, and FE HQ and NPRC continued their 7-year trend of a TRC rate of 0. NETL and SPR both reduced their TRC rates to 1.0 and 1.2 respectively. SPR's performance is particularly notable in that the site reduced its TRC rate by 37 percent from FY 2004 for its lowest TRC rate in five years. RMOTC experienced a slight

increase in the TRC rate from last year as a result of having one additional recordable case (a total of 3 cases) in FY 2005 over FY 2004.

Of the 26 recordable cases for FE this past year, the root causes were: (1) equipment malfunctions, (2) insufficient equipment inspections, and (3) building design. Notably, the primary causes for accidents and incidents in FY 2004 – employee error and inadequate employee training – were no longer identified as root causes for most of the recordable cases in FY 2005. FE attributes this improved performance to the success of its enhanced safety training and awareness programs, including behavioral safety awareness training and training to help employees recognize and eliminate hazards in the workplace. For FY 2006, FE will continue with its existing array of safety awareness and training programs, emphasizing procedures to help employees identify potentially unsafe equipment.

Lost Workday Case Rate Continues to Decrease and Ranks Among the Best in the Department

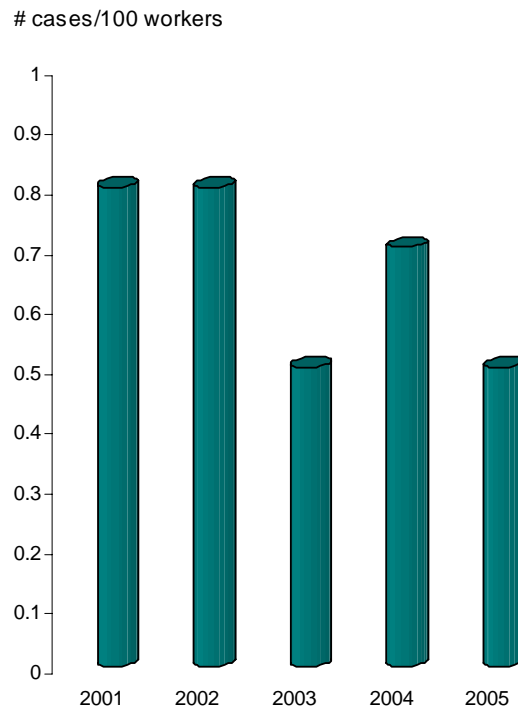
FE’s Lost Workday Case (LWC) rate represents the number of work-related injuries that resulted in employees missing days of work or returning to work on restricted duty. In FY 2005, FE’s LWC rate was 0.5, a 29 percent reduction from last year, and a return to the historic low rate achieved in FY 2003. The LWC rate is also below the DOE-wide rate of 0.6. This year’s rate of 0.5 is attributed to 12 accidents at FE sites that resulted in lost workdays. This is 25 percent fewer accidents than occurred last year (16 accidents in FY2004). Proactive efforts such as employee training, newsletters, and internal assessment and inspection programs have all helped to improve the safety conditions at FE sites and reduce accident rates.

As with the TRC rate, the LWC rate is normalized to hours worked. A rate of 0.5 indicates that 5 of every 1,000 workers suffered a work-related injury or illness, resulting in lost workday(s) or day(s) of restricted duty. This

category of injuries has the most serious consequences and cost implications for FE. While the employee recuperates, other people have to complete the injured worker’s assignments or the project is delayed until the employee returns to work.

Figure 2

FE LOST WORKDAY CASE (LWC) RATE



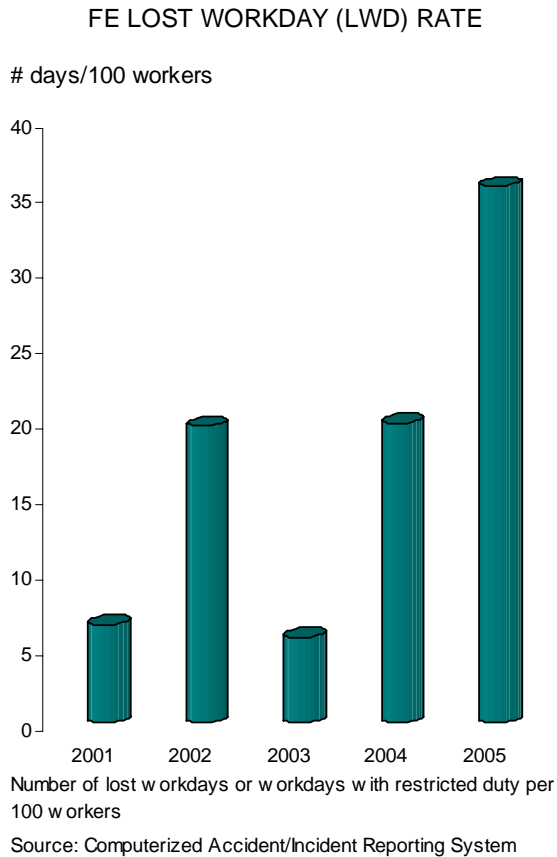
Number of injury and illness cases per 100 workers

Source: Computerized Accident/Incident Reporting System

ARC, NPRC, and FE HQ continued a 6-year trend of having no accidents that resulted in lost workdays. RMOTC had perfect performance during the first three quarters of the year, but had one lost workday case during the last quarter of the year. NETL maintained its 5-year low of 4 accidents resulting in lost work days. SPR reduced its LWC rate by 30 percent from last year, and has reversed the significant increase incurred in FY 2004.

Lost Workday Rate Increases Though Most Sites Demonstrated Strong Performance

Figure 3

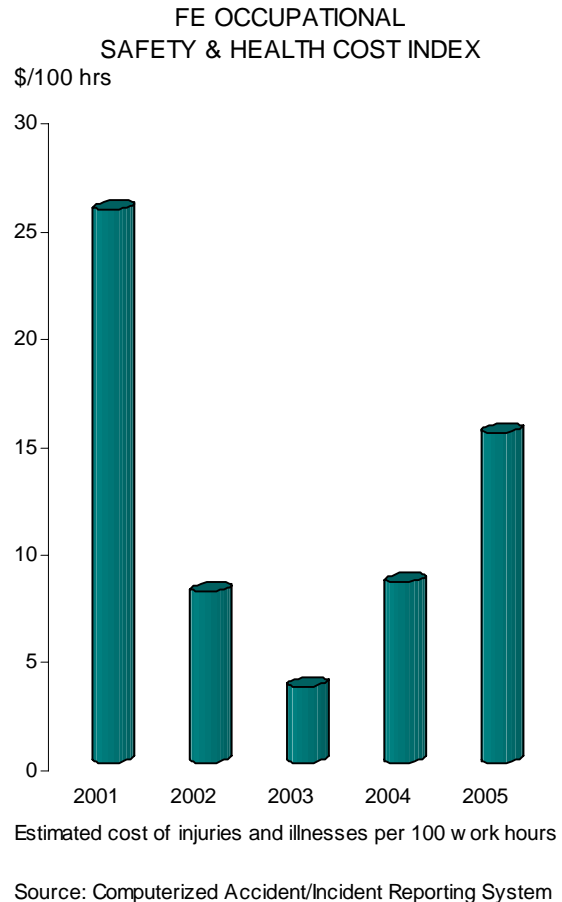


The Lost Workday (LWD) rate is the number of lost workdays normalized for the number of hours worked by 100 employees, and is an indicator of the severity of the accidents that occur. FE's LWD rate of 35.6 represents an increase of 79 percent from the FY 2004 rate of 19.9, primarily as a result of 2 accidents at SPR that resulted in extensive lost time. FE's total number of workdays lost in FY 2005 was 788. With the exception of SPR, all other FE sites maintained or improved their performance in FY 2005 from FY 2004. ARC, NPRC, and FE HQ had no Lost Workdays, and NETL's LWD rate fell from 7.9 in FY 2004 to 2.7 in FY 2005, for a 66 percent decrease.

Safety and Health Cost Index Nearly Doubles

The Occupational Safety and Health Cost Index is a performance indicator that represents the normalized estimate of the costs of FE's injuries incurred by FE sites. FE's FY 2005 cost index of 15.33 is 83 percent higher than the FY 2004 figure, due to the high costs associated with the 2 serious accidents at SPR. Despite this large overall increase in the FE-wide cost index, ARC, NPRC, and FE HQ all had zero compensation costs for the third year in a row. NETL and RMOTC both saw significant decreases. NETL reduced its Occupational Safety and Health Cost Index by 53 percent to a historic low of 2.23. RMOTC's Occupational Safety and Health Cost Index also decreased by 15 percent.

Figure 4



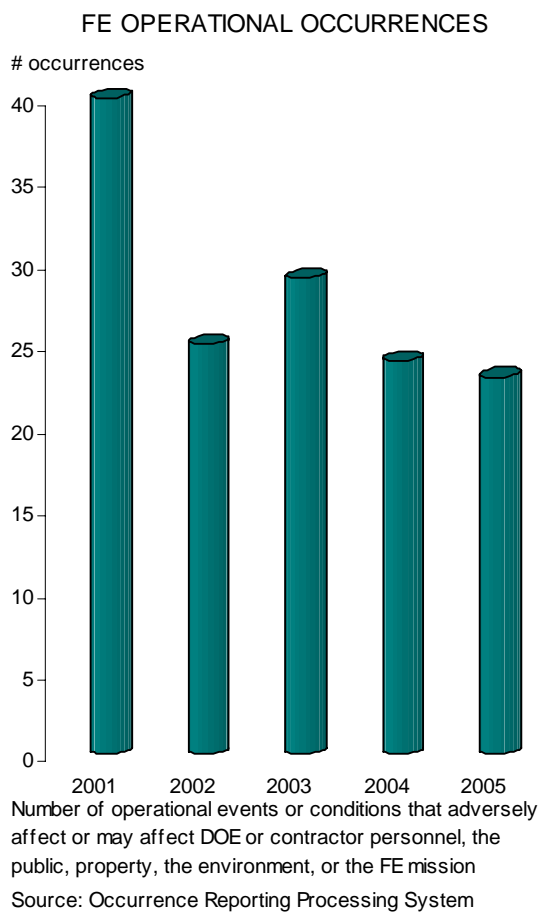
Number of Operational Occurrences Falls to Historic Low

The operational occurrences performance metric represents the number of operational events or conditions that may adversely affect DOE or contractor personnel, the public, DOE property, the environment, or the DOE mission. In FY 2005, there were 23 operational occurrences at FE sites, the lowest number of occurrences since at least 1990.

while NETL experienced a small increase from 6 in FY 2004 to 8 in FY 2005.

The major causes of FE's operational occurrences in FY 2005 were defective or malfunctioning equipment and improper equipment or tools inspections. Preventive maintenance, regular equipment inspections, and employee training on how to recognize potential equipment failures should help resolve these issues.

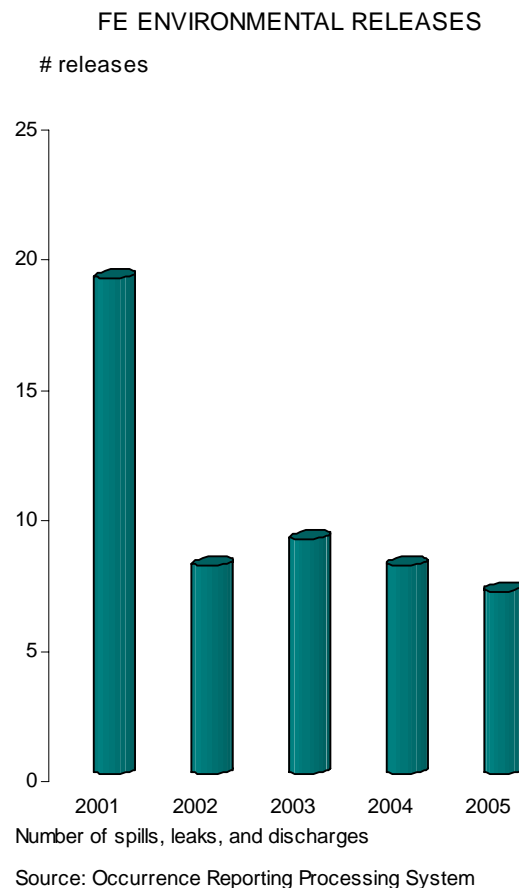
Figure 5



Experience at the sites was mixed. ARC, for the third year in a row, had zero operational occurrences. RMOTC reduced its operational occurrences by 25 percent from 12 in FY 2004 to 9 occurrences in FY 2005. SPR maintained its FY 2004 low with 6 occurrences in FY 2005,

Number of Environmental Spills and Releases Sets Five Year Low

Figure 6



FE sites reported 7 environmental spills and releases in FY 2005, the fewest in five years. Environmental releases represent the total number of spills, leaks, and discharges of hazardous substances, oil, and regulated

pollutants to the environment that must be reported. ARC continued its three year trend of zero releases. The number of releases at RMOTC (5) and NETL (1) remained unchanged from FY 2004, while SPR reduced its releases to 1. Most of the releases were a result of internal corrosion of flow line leaks and cold weather which weakened equipment. These releases produced water, butane, gasoline, brine, and small amounts of crude oil.

Number of Environmental Regulatory Violations Decline

Table 1

FE REGULATORY VIOLATIONS	
Fiscal Year	# of Violations
2001	2
2002	3
2003	3
2004	4
2005	3

Source: Occurrence Reporting Processing System

The regulatory violations performance metric refers to the total number of violations or citations received from external regulatory agencies, such as EPA, OSHA, or state regulatory agencies, during the fiscal year. In FY 2005, FE received 3 regulatory violations, 1 less than in FY 2004. Two of these occurred at ARC, and the other occurred at NETL. SPR continued its 7-year trend of not having a single Notice of Violation (NOV).

ARC received a NOV from the City of Albany for a late submittal of a quarterly wastewater analysis. The report was late because ARC did not receive the results from the contracted lab in time. In order to ensure that this does not reoccur, ARC has introduced a “tickler” reminder into the Group Wise system to ensure that samples are collected, analyzed and submitted to the City in time to meet the permit deadline. ARC also received a certified warning letter as a result of an unannounced RCRA inspection. The warning letter concerned: a container in hazardous waste storage without a date marked on the container; more than one container without the words “Hazardous Waste” marked on

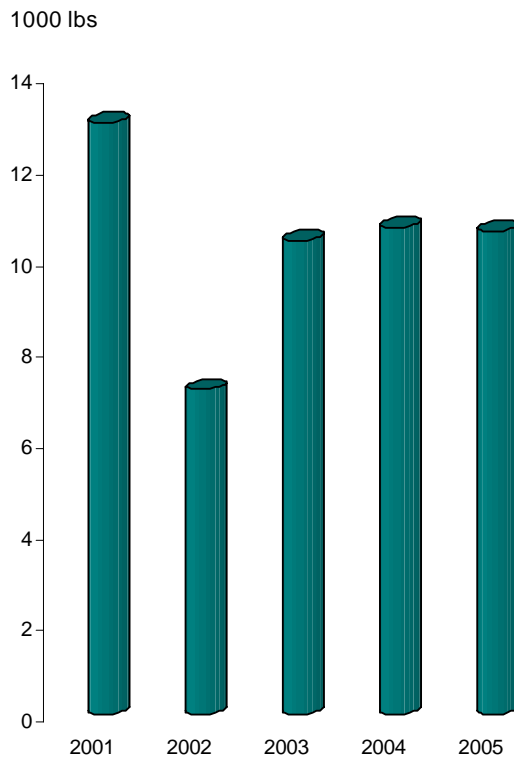
the container; and a lack of documentation showing that advance arrangements had been made with local fire, hospital, and police. ARC has already initiated corrective actions to ensure that these issues are rectified.

NETL received an NOV at its Morgantown site for exceeding pH levels on a wastewater permit. The source of the low pH levels was identified as a sump area and the standard operating procedure for draining this area to the sewer system has been modified to ensure that the permit requirement will not be exceeded in the future.

Hazardous Waste Generation Decreases by 1 percent

Figure 7

FE HAZARDOUS WASTE GENERATION



Source: Field sites

FE generated 10,611 pounds of hazardous wastes (wastes defined as hazardous under EPA’s RCRA regulations) during FY 2005, a 1

percent net decrease from FY 2004. RMOTC, NPRC, and FE HQ continued to generate no hazardous waste this year. NETL and ARC both had slight increases in the amount of generated hazardous wastes – 11 percent and 4 percent respectively. However, these increases were offset by SPR, which reduced its hazardous waste generation by 63 percent to 495 lbs., for an all-time low at SPR.

SPR is proud to report that it has reduced its hazardous waste generation by 91 percent from its 1993 baseline, fulfilling its commitment to the Secretary of Energy to reduce the generation of hazardous waste by 90 percent from the baseline by FY 2005. About 94 percent of SPR's hazardous waste is generated from laboratory analyses, and the remainder is from fluorescent lighting. SPR generated zero hazardous waste from all other potential sources.

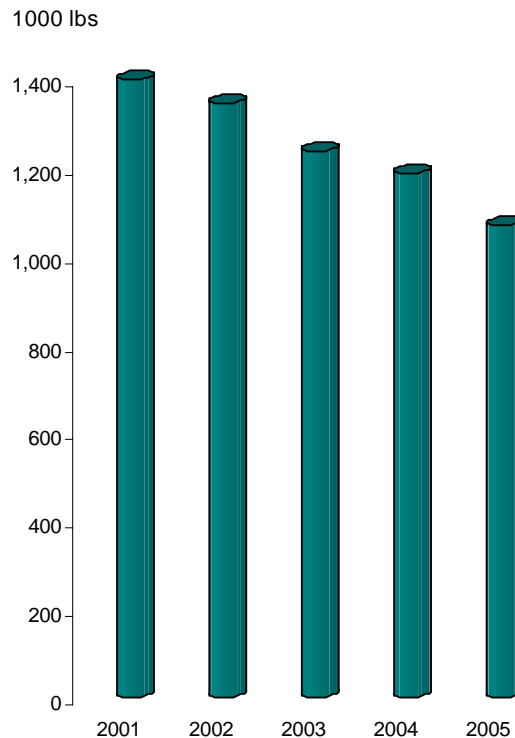
At ARC, the majority of hazardous waste generated in FY 2005 was a result of aggressive cleanup efforts. However, because of the nature of the R&D projects conducted at ARC, the amount of hazardous waste generated from year to year fluctuates depending on the particular projects being conducted. At NETL, the two major contributors to the increase in hazardous waste generated this year were: 1) solvent contaminated debris from maintenance and research operations and 2) waste corrosive liquids from research operations.

Sanitary Waste Declines for Fifth Consecutive Year

FE generated approximately 1.07 million pounds of sanitary waste in FY 2005, which represents a five-year low for FE. Sanitary waste is defined as all wastes generated, excluding RCRA hazardous wastes and recycled wastes. Both NETL and SPR reduced their sanitary waste generation by 18 percent and 8 percent, respectively. ARC increased its generation slightly from the FY 2004 levels, due in large part to a cleanup project for asphalt and concrete.

Figure 8

FE SANITARY WASTE GENERATION



Source: Field sites

All of the FE sites continue to actively pursue recycling and reuse programs for office materials, batteries, and scrap metal. Sites have also established a broad range of other innovative site-specific recycling and reuse programs. For example, NETL reuses coal waste and petroleum products for energy recovery, and has implemented a reusable plastic cafeteria takeout container program. SPR recycled nearly 800 metric tons of concrete and asphalt and 500 metric tons of other materials, including fluorescent bulbs for re-use, recycled fuel tank residues, reused Mardi Gras beads, and reused (by 3rd party) drilling mud during FY 2005. ARC's recycling and reuse programs include items such as asphalt and scrap metal. RMOTC has instituted a program requiring staff to clean and reuse maintenance rags using wash water being recycled to the crude-oil production system, where it is treated and released with

other produced waters via a Wyoming State Pollution Discharge Elimination System (WYPDES) Discharge Permit.

Achievement of Affirmative Procurement Goals

Federal agencies are required to purchase products with recycled content as designated by EPA. These categories are paper and paper products, construction, nonpaper office products, vehicular transportation, and landscaping. EPA allows Federal agencies to exclude from its total purchases those purchases in which a product with recycled content is not available at a reasonable cost within a reasonable period or

does not meet performance standards. FE improved its affirmative procurement "green" purchasing programs and instituted additional recycling programs for office supplies to reduce the need to purchase new items.

ARC, NETL, and SPR met FE's green purchases target for FY 2005, which calls for 100 percent purchase of EPA-designated recycled content products where cost effective and where desired performance can be achieved. NETL further reduced the purchases of warehouse items through successful use of the Green Cupboard recycling of office supplies.

IV. Next Steps in the Pursuit of ESS&H Excellence

Once again FE has made significant progress over the last year in demonstrating a level of ESS&H performance comparable to or better than the best in the Government and private sector. To further this progress, FE will continue to establish the highest levels of security and emergency preparedness and continuously improve in all activities as the agency strives towards the goal of zero accidents. This section summarizes some of the ESS&H challenges that FE faces on a corporate-wide basis, and the planned initiatives to continue to improve performance in FY 2006. A summary of site-specific initiatives for FY 2006 is also presented below.

Key Challenges and Initiatives

Striving for “ZERO”

FE’s ultimate goal is to have zero accidents, work-related injuries and illnesses, regulatory enforcement actions, and reportable environmental releases. Through the hard work of FE employees and their commitment to ESS&H issues, FE is getting closer and closer to this goal. FY 2005 proved to be another year in which FE made consistent, measurable progress in ESS&H goals. However, this goal has not yet been reached. In FY 2005, FE had a significant number of accidents caused by unexpected mechanical and equipment failures. Therefore, the organization must continue to (1) focus on training that enables employees to recognize potential equipment failures and (2) demand careful review of equipment maintenance procedures and schedules, thereby ensuring that employees are protected to the extent practicable.

Moving forward, FE will work to foster a work environment that encourages free and open communication of ESS&H concerns to ensure that problems are identified and corrected before accidents occur. Continuing to expand training

programs so that employees learn to identify potential equipment failures will also help to reduce unsafe conditions.

Eliminating Environmental Legacies

This year FE has made considerable progress on addressing environmental legacies at both offsite and onsite locations and has worked hard to restore those areas to their pre-contamination state. FE has continued to implement a number of leading edge cost-effective approaches to remediation and post-closure activities. For FY 2006, the organization will focus on: (1) cleanup of NPRC, as part of DOE’s obligations under a privatization agreement with the State of California; (2) further investigation and clean-up of groundwater contamination and beryllium at ARC in cooperation with Oregon’s Department of Environmental Quality; (3) restoration activities at RMOTC; and (4) ongoing restoration, monitoring and closeout at sites where FE previously conducted research, development and demonstration projects. The key to making these projects successful is to continue to work in close partnership with affected communities and the Federal and state regulatory agencies to ensure that remediation is achieved at these sites. The goal is to eliminate historic environmental legacies and to ensure, through effective environmental management, that current operations do not result in future legacies.

Pursuing Injury Prevention and Physical Fitness

It is well known that poor overall physical and mental fitness can contribute to injuries and illnesses, and result in high compensation costs. By making physical and mental fitness of the workforce a high priority, FE has seen reductions in the recovery time from injuries sustained on the job. For FY 2006, FE will continue to offer programs to increase employees’ physical fitness and wellness, as well as their knowledge about fitness and health in all aspects of their lives. This will make the workforce happier and

more productive, and reduce associated medical care and compensation costs to FE.

Protecting our Workers and Meeting DOE Security Needs

FE will continue to improve its protection and security capabilities to ensure that it is prepared to counter homeland security threats. Since FE manages strategic resources that are vital to the daily needs of the nation, it must ensure that the necessary precautions and procedures are in place to provide security to its employees and the supply to fulfill the nation's energy needs. Accordingly, FE will continue to enhance its security measures and upgrade its infrastructure by constructing security fences, installing surveillance equipment, and ensuring that badging procedures meet all national security concerns. In addition, FE will evaluate and review security programs for protection of sensitive information, employees, physical infrastructure, equipment, and assets to ensure that current practices are up to date and are as effective as possible. FE will also enhance its training drills to incorporate more security concerns and responses to ensure that the workforce is ready to respond regardless of the event.

Achieving Self-Assessment and External Certification of ES&H Programs

In 2006, FE will expand its already rigorous assessment programs to ensure that ESS&H program goals are being achieved, that FE is reporting near misses effectively so that potential problems can be corrected before accidents occur, and that opportunities for improvement are constantly being identified. To ensure that assessments of ESS&H programs are successful and reliable, FE will continue to use the three-pronged approach of internal site self-assessments; assessments utilizing representatives from both onsite and offsite locations including other parts of FE and DOE; and assessments utilizing experts from outside the Department. The key to this approach will be effective self-assessment, which puts

accountability and responsibility at the appropriate organizational level. This will allow potential problems to be corrected before they occur and will provide effective home grown solutions.

In addition to the emphasis on self-assessment, external, nationally-recognized experts will be employed to carry out independent assessments to validate and certify that FE's management systems meet applicable laws and regulations. This approach will allow employees and the public to have a high level of trust that FE's systems are reliable and have accountability built into them. This will foster strong and positive relationships with stakeholders, employees, and the communities in which FE works. FE will continue to pursue and maintain external certifications of ES&H programs by organizations such as OSHA, EPA, and the International Organization for Standardization (ISO). Over the last several years, the office has worked to meet President Bush's Executive Order 13148 requirements to establish fully documented and auditable environmental management systems by December 2005. Having met this requirement, FE is now focused on moving forward to ensure that its programs are the safest and most reliable in the nation and become an industry model for ES&H programs.

Fostering a "Learning Organization"

FE continues to demonstrate its strong commitment to continuous learning through its broad range of training programs, including web-based solutions and other shared learning activities. FE will continue to leverage the technical expertise that exists throughout the organization and foster the practice of learning from other organizations, adopting effective ideas in pursuit of continuous improvement, and taking advantage of FE's best practices through FE's Best Practice database. In addition, FE HQ will continue to sponsor its Annual Excellence in Environment, Security, Safety and Health Award program to recognize and honor DOE personnel for outstanding contributions toward ESS&H performance improvements. The program will

continue to showcase dramatic ESS&H improvements using techniques that are potentially applicable to other DOE organizations. The award program provides the opportunity not only to honor the outstanding efforts of FE workers, but also to transfer these best practices to other FE organizations.

Site-Specific Initiatives

Strategic Petroleum Reserve (SPR)

- ✓ Maintain ISO 14001, OSHA Voluntary Protection Program (VPP), and EPA National Environmental Performance Track Certification.
- ✓ Incorporate Human Performance Improvement theory and techniques into operations and maintenance procedures, training packages, safe work permitting, behavioral analysis, and accident investigation.
- ✓ Expand current behavioral safety programs.
- ✓ Continue evolution of the “Crosstalk” program into a “Lessons Learned” program.
- ✓ Complete crude oil degasification at the Big Hill facility to minimize the potential hydrocarbon emissions from downstream customer facilities.
- ✓ Complete the hydrocarbon emission control initiative from temporary tanks used for storage well maintenance workover in order to reduce regional impacts to the airshed.
- ✓ Remediate the buildings at the Big Hill facility to improve indoor air quality.
- ✓ Install a new raw water line and upgrade the associated intake structure at West Hackberry to prevent a possible future failure and discharge into the associated waterway.
- ✓ Construct the Bayou Choctaw clear zone with implementation of corresponding mitigation to offset impacts to the

surrounding swamp and mature cypress trees.

- ✓ Procure a Management Command Vehicle (MCV) to use during emergencies to provide communications and a centralized area for decision-making for the command staff.
- ✓ Maintain enhanced security posture, upgrade physical security infrastructure, and reduce safety incidents among the protective force.
- ✓ Develop a lessons-learned document from the activities that were undertaken during Hurricanes Katrina and Rita.
- ✓ Implement all of the recovery activities from Hurricanes Katrina and Rita, and resume other necessary activities delayed or impacted by those storms, without compromising ESS&H requirements.

National Energy Technology Laboratory (NETL)

- ✓ Achieve Well Workplace designation by the Wellness Councils of America.
- ✓ Improve the selection and placement of heat and smoke detectors to reduce the number of false alarms.
- ✓ Continue to upgrade site-wide gas monitoring system to modernize equipment and to incorporate into the site-wide building management system.
- ✓ Continue to implement wellness programs to help NETL employees become more aware of the benefits of achieving good health through exercise and healthy living.
- ✓ Complete upgrades to the Pittsburgh Waste Water Treatment Facility to reduce NOV's.
- ✓ Complete fencing at the Pittsburgh facility and install surveillance equipment.

- ✓ Transition to the new HSPD-12 compliant processes and technology.
 - ✓ Incorporate the recycling sorting program into a permanent part of the site support contractor's statement of work.
 - ✓ Maintain and calibrate ES&H equipment through site-wide tracking software.
 - ✓ Reduce the amount of hazardous waste generated at the Chemical Handling Facility.
 - ✓ For the EMS, complete the ISO 14001 recertification audit, all ISO 14001 surveillance audits, and the OHSAS 18001 certification audit; implement a new corrective/preventive action tracking system; and conduct supplemental EMS training related to how NETL conducts monitoring and measurement.
 - ✓ Work with local fire protection system company to develop a small cadre of technicians with working knowledge of the Morgantown site's fire detection/protection system.
 - ✓ Implement Fire Proof Manager software to computerize inspection and maintenance data storage and the tracking of fire protection systems and fire extinguishing equipment to better ensure systems are inspected and maintained.
 - ✓ Identify specific hazards that would be introduced or compounded by wearing contact lenses and implement adequate mitigation measures.
 - ✓ Conduct Electrical Safety Practices refresher training for Qualified Electrical Workers.
 - ✓ Implement NIMS (National Incident Management System) requirements to enhance the overall organization and direction for managing emergency incidents.
 - ✓ Produce two computer based training modules for Laser Safety.
 - ✓ Conduct Electrical Arc Flash Training for Qualified Electrical Workers.
 - ✓ Complete active air-sparge system at Hoe Creek III and begin the 2 year stability period for ground water quality.
 - ✓ Evaluate the success of the revegetation program at Hanna DOE UCG site, and be released from the terms of the reclamation performance bond.
 - ✓ Reduce BTEX contamination to non-detectable levels in the groundwater at Rock Springs Site 4 and begin 1 year stability period for ground water quality.
 - ✓ Evaluate anaerobic microbial populations at Rock Springs Site 12, and determine nutrient and augmentation needs for reducing BTEX levels in the ground water.
- Albany Research Center (ARC)***
- ✓ Continue groundwater site investigation and remediation activities with cooperation from Oregon DEQ.
 - ✓ Continue sampling and remediation activities associated with beryllium.
 - ✓ Implement the Medical Monitoring/Surveillance program.
 - ✓ Expand the Industrial Hygiene services to support and direct the Medical Monitoring/Surveillance programming.
 - ✓ Complete the updates to the ES&H Safety Manual.
 - ✓ Maintain ISO 14001 Certification and improve environmental performance.
 - ✓ Improve the cost-effectiveness of ESS&H programs by incorporating thorough planning and approvals of projects, work orders, etc. through the JHA process.

- ✓ Expand orientation checklist for contractors and visitors to include a PowerPoint presentation/tour of Center.
- ✓ Improve site performance related to emergency management and security.
- ✓ Provide for additional Management and ESS&H oversight as part of becoming part of NETL.
- ✓ Provide for additional Management and ESS&H oversight as part of A-76 Outsourcing Studies.
- ✓ Continue to develop and enhance an ESS&H “culture” at ARC.
- ✓ Increase facility inspections to achieve EMS Environmental Action Plan goals to reduce environmental releases/spills by 10% annually, including both reportable releases (by number) and non-reportable releases (by average quantity).
- ✓ Continue to evaluate recycling/P2 program to reduce the amount of sanitary waste and to maintain hazardous waste generation at zero.
- ✓ Continue to conduct “mini-drills” on a regular basis to ensure the readiness of RMOTC emergency response personnel.
- ✓ Continue to improve foreign visitor security by working with staff from DOE Security/Counterintelligence.
- ✓ Continue to develop and enhance an ESS&H culture at RMOTC.

Rocky Mountain Oilfield Testing Center (RMOTC)

- ✓ Perform self-certification for RMOTC’s EMS and participation in first responder (BEC) mini-drills.
- ✓ Provide additional training to reduce/eliminate all recordable injuries, near misses, and lost time incidents.

Appendix A. SUMMARY OF FE 2005 PERFORMANCE MEASURES: PERCENTAGE CHANGE FROM FY 2004 PERFORMANCE

Metric	FE Total	FE HQ	SPR	NETL	ARC	RMOTC	NPRC	DOE Total	DOE VPP Sites*
Total Recordable Cases	26 -(32%)	0 (NC)	12 -(40%)	11 -(31%)	0 (NC)	3 (50%)	0 (NC)	2,056 (-6%)	220 (-21%)
Total Recordable Case Rate	1.2 -(25%)	0 (NC)	1.2 -(37%)	1 -(29%)	0 (NC)	4.8 (71%)	0 (NC)	1.5 (-6%)	0.9 (NC)
# Lost Workday Cases	12 -(25%)	0 (NC)	7 -(30%)	4 (NC)	0 (NC)	1 -(50%)	0 (NC)	862 (-7%)	90 (-22%)
Lost Workday Case Rate	0.5 -(29%)	0 (NC)	0.7 -(30%)	0.4 (33%)	0 (NC)	1.6 -(43%)	0 (NC)	0.6 -(14%)	0.4 (NC)
# Lost Workdays	788 (65%)	0 (NC)	732 (110%)	28 -(70%)	0 (NC)	28 -(24%)	0 (NC)	32,862 (-5%)	3,492 (-40%)
Lost Workday Rate	35.6 (79%)	0 (NC)	73.2 (121%)	2.7 -(66%)	0 (NC)	44.9 -(12%)	0 (NC)	24.5 (-3%)	13.6 (-26%)
Occupational Safety and Health Cost Index	15.33 (83%)	0 (NC)	30.71 (142%)	2.23 -(53%)	0 (NC)	13.80 -(15%)	0 (NC)	14.08 (48%)	4.91 (-26%)
Estimated Injury & Illness Costs	\$678,600 (68%)	\$0 (NC)	\$614,400 (130%)	\$47,000 -(58%)	\$0 (NC)	\$17,200 -(27%)	\$0 (NC)	\$37,816,000 (45%)	\$2,555,600 (-39%)
# Operational Occurrences	23 -(4%)	0 (NC)	6 (NC)	8 (33%)	0 (NC)	9 -(25%)	0 (NC)	1,815 (9%)	Not Available
# Environmental Releases	7 -(13%)	0 (NC)	1 -(50%)	1 (NC)	0 (NC)	5 (NC)	0 (NC)	Not Available	Not Available
# Regulatory Violations	3 -(25%)	0 (NC)	0 (NC)	1 -(50%)	2 ***	0 -(100%)	0 (NC)	Not Available	Not Available
Lbs. Hazardous Waste Generated	10,611 (-1%)	0 (NC)	495 -(63%)	5,225 (11%)	4,891 (4%)	0 (NC)	0 (NC)	Not Available	Not Available
Lbs. Sanitary Waste Generated	1,069,469 -(10%)	0 (NC)	402,616 -(8%)	430,482 -(18%)	199,151 (2%)	37,220 (30%)	0 (NC)	Not Available	Not Available
Hours Worked	4,425,359 -(8%)	Not Available	2,000,561 -(5%)	2,111,946 -(10%)	188,228 -(7%)	124,624 (14%)	Not Available	268,559,479 -(2%)	52,072,699 (-18%)
Near Misses	8 (100%)	0 (NC)	0 (NC)	5 (500%)	0 (NC)	3 (NC)	0 (NC)	227 -(20%)	Not Available

Numbers in parentheses represent change from FY 2004

***FY 2004 number equaled zero

NC = No Change from FY 2004

* DOE VPP Sites include sites associated with INEEL, the Hanford Site, and SPR, as well as Fluor Fernald, Inc., Kansas City Plant, Nevada Test Site, West Valley Nuclear Services Company, Westinghouse Savannah River Company, Washington TRU Solutions, Inc., Bechtel SAIC Company, LLC., and ORISE

Office of Environment, Security, Safety and Health

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Office of Environment, Security, Safety and Health

FE FY 2005 Site Awards

- DOE "Star" Award for Green Fleet "Petroleum Fuel Reduction Through Use of Alternative Fuels" – NETL
- Award ISO 14001 Certification – ARC
- DOE P2 Star Award for Degassing Crude Oil to Reduce Emissions from Customer Facilities – SPR
- National Safety Council Green Cross Award for Safety Performance, Level 1 Green Cross for Recognition of Outstanding Efforts in Occupational Safety – NETL
- NAEP National Environmental Excellence Award for Best Environmental Technology for Regional Pollution Prevention – SPR
- Louisiana Environmental Excellence Award – SPR Louisiana sites for BC, WH and NOLA
- Louisiana Environmental Leadership Program Award for Pollution Prevention for Innovative Approaches to Reducing Waste – SPR
- Superior Star Award, DOE VPP – SPR site Big Hill
- DOE Secretary's Gold Medal – SPR
- Clean Texas – Cleaner World National Leader Recognition – SPR sites Big Hill and Bryan Mound
- 2005 FEMP Retrofit Project Initiative Award – SPR
- VPP status as Star facilities – Three SPR sites
- Star among Stars OSHA Region VI Award – SPR Big Hill
- Superstar Award OSHA Region VI – SPR sites Bayou Choctaw and West Hackberry
- Star of Excellence OSHA Region VI – SPR site Bryan Mound
- Star of Excellence Awards – SPR sites Bayou Choctaw, West Hackberry, and Bryan Mound
- FE Excellence in Environment, Security, Safety, and Health Award – SPR, NETL
- DOE Pollution Prevention (P2) Award for Promotion of Alternative Fuels in its Operations – NETL
- DOE-wide "Best in Class Pollution Prevention Award" for Degassing Crude Oil to Reduce Emissions From Customer Facilities – SPR
- White House Closing the Circle Environmental "Honorable Mention" – SPR
- 2005 Malcolm Baldrige National Quality Award – SPR