The Office of Fossil Energy: Striving for Environmental, Security, Safety and Health (ESS&H) and Sustainability Excellence

Annual Report Fiscal Year 2011

Office of Environment, Security, Safety and Health

U.S. DEPARTMENT OF ENERGY

A Letter from the Assistant Secretary

The Department of Energy's Office of Fossil Energy (FE) is dedicated to ensuring that the nation can continue to rely on traditional resources for clean, affordable energy while enhancing sustainability across its three sites: the Strategic Petroleum Reserve (SPR), the National Energy Technology Laboratory (NETL), and the Rocky Mountain Oilfield Testing Center (RMOTC). To demonstrate FE's commitment to sustainability outlined in Executive Orders and other sustainability policies, we have included a new section in this year's Annual Report: Summary of ESS&H Sustainability Performance. This section describes FE progress against seven key metrics including greenhouse gas emissions, renewable energy, energy intensity, and potable water intensity that show FE's continued development and maintenance of a clean, environmentally friendly, and accountable program.

During FY 2011, FE advanced the culture of safety by combating and mitigating employee error, procedures, and equipment malfunction. More specifically, FE sites worked towards zero injuries and illnesses by reinforcing the importance of integrating safety into management and work practices at all levels and into all facets of work planning and execution. Furthermore, FE has been incorporating industry-wide best management practices and refining internal processes to ensure the well-being of all employees. Across FE sites, we also ensure that employees have the training, support, and resources that they need to refine their skills and address ongoing and emerging safety and health issues.

FE continued to strengthen security by updating facilities and infrastructure and ensuring continued compliance with DOE regulations and policies to identify and confront ongoing and emerging threats to FE sites. In addition, FE reinforced strong emergency management practices by hosting exercises, training, and drills to prepare for potential security threats or emergency situations.

Moving forward, our employees continue their dedication to the principles of ESS&H and remain committed to achieving the highest levels of compliance and safety. I look forward to ensuring that strong ESS&H values are incorporated into every task we undertake. I now invite you to review FE's annual achievements and welcome any suggestions for ESS&H programs.

Charles D. McConnell
Assistant Secretary
Office of Fossil Energy

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I. Introduction

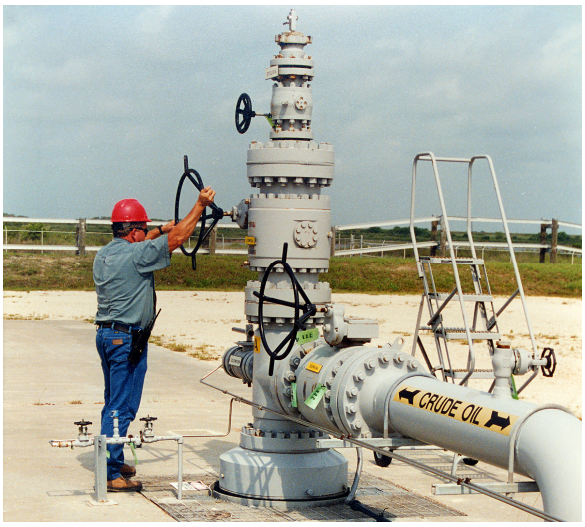
Fossil fuels currently account for a combined 83 percent of domestic energy consumption, a share that the Energy Information Administration projects will be maintained through at least 2030. Consequently, the U.S. Department of Energy's (DOE) Office of Fossil Energy (FE) has a key role in helping America meet its need for secure, reasonably priced, and environmentally sound fossil energy while increasing efficiency. FE's primary mission is to ensure that the nation can continue to rely on traditional resources for clean, affordable energy while enhancing environmental protection.

FE has proven its commitment to ensuring the highest possible standards for the environment, security, safety, and health (ESS&H) of its sites and operations. FE dedicates itself to ensuring the highest level of protection for FE's physical assets; maintaining strong emergency preparedness and response programs; integrating ESS&H into all program activities; eliminating injuries and incidents; promoting environmental protection and sustainability; adopting the highest applicable standards of performance; ensuring management and employee accountability; encouraging worker participation; and facilitating public participation. These core values help FE focus on integrating ESS&H into all aspects of the work planning and implementation processes.

The 2011 Annual Report summarizes FE's ESS&H performance for fiscal year (FY) 2011 and includes data from the National Energy Technology Laboratory (NETL), the Strategic Petroleum Reserve (SPR), the Rocky Mountain Oilfield Testing Center (RMOTC), and FE Headquarters (FE-HQ). Chapter I of the report introduces the document and the FE sites. Chapter II provides a comprehensive overview of key accomplishments during FY 2011. Chapter III presents the quantitative results of FE-wide key ESS&H performance indicators. Chapter IV summarizes progress made by FE to meet agency-wide sustainability goals. Finally, Chapter V outlines the key challenges, plans, and initiatives for improvement during FY 2012.

The FE Sites

FE has more than 2,500 Federal employees, contractors, and subcontractors located at headquarters in downtown Washington, D.C., and in Germantown, MD and FE field sites in Morgantown, WV; Pittsburgh, PA; Fairbanks, AK; New Orleans, LA; Casper, WY; Albany, OR; and Houston, TX.



A technician checks the valve on a wellhead assembly at SPR's Big Hill site.

FE explores diversified strategies to obtain supplies of fossil energy in the future, maintain the U.S. petroleum reserves, and lead state-of-the-art research and development focused on fossil energy and technology research. Innovative FE research and development (R&D) programs are leading efforts to make possible greater responsible development of the nation's most abundant energy resource: coal. Chief among these is the Clean Coal Power Initiative, which will help advance FE's carbon capture utilization and storage goals by partnering with industry to build and operate near-zero atmospheric emissions power plants.

Another critical initiative is the Industrial Carbon Capture and Storage Program, which applies carbon capture, utilization and storage technologies to industrial plants and explores the beneficial reuse of carbon dioxide.

SPR's pipelines supply federally owned crude oil for use in case of an emergency.

FE is also responsible for $3.4 billion through the American Recovery and Reinvestment Act of 2009 to help fund activities targeted at expanding and accelerating the commercial deployment of carbon capture and storage (CCS) technology. This investment is a key driver to the advances needed for future plants with CCS.

SPR is a DOE-owned, contractor-operated complex of sites that stores oil in 62 subterranean salt dome caverns along the Gulf Coast. Each oil cavern holds between 6 and 35 million barrels. With a current capacity of 727 million barrels of crude oil, SPR represents a $23 billion-plus investment in national security ($5 billion for facilities; $18 billion for oil acquisition).

The SPR's Project Management Office (PMO) is headquartered in New Orleans, Louisiana, and has four operating sites: Bayou Choctaw and West Hackberry in Louisiana, and Bryan Mound and Big Hill in Texas. The PMO oversees daily operations of the major crude oil storage sites and logistical facilities for the nation's oil stockpile. The sites are managed and operated by contractor, DM Petroleum Operations Company.

In the event of an energy emergency, SPR oil is distributed by competitive sale. The SPR has been used under these circumstances only three times, most recently in June 2011 when the President directed a sale of 30 million barrels of crude oil to offset disruptions in supply due to Middle East unrest. The United States acted in coordination with its partners in the International Energy Agency (IEA). The IEA countries released all together a total of 60 million barrels of petroleum.

Prior to the June 2011 announcement of sale, the SPR had been filled to its 727 million barrel capacity since December 2009 when, on Christmas Day, a tanker ship arrived with the final 493,000 barrels of crude oil that would complete the Reserve's initiative to fill the SPR. Efforts to expand the SPR to one billion barrels were terminated in 2011.

SPR also manages the two million barrel emergency Northeast Home Heating Oil Reserve, which houses fuel oil at three sites throughout the Northeast. Because 69% of people in the Northeast rely on oil to heat their homes, it is vital to maintain this reserve.

NETL is the only U.S. national laboratory devoted to fossil energy research. With more

A laboratory at NETL-Albany.

than 1,100 federal and contractor employees at its five sites located in Morgantown, WV; Pittsburgh, PA; Albany, OR; Houston, TX; and Fairbanks, AK, NETL programs are aimed at enabling domestic coal, natural gas and oil to economically power the nation's homes, industries, businesses and transportation sectors in an environmentally conscious manner, including greenhouse gas emissions reduction.

A NETL researcher inspects a steam turbine rotor assembly.

NETL functions as both an on-site science and technology research center and as the administrator of nearly 1,800 contracts with external organizations. NETL also funds nearly 500 university research projects that help to train the next generation of energy scientists. These projects have a total value of over $9 billion and private sector cost-sharing of over $5 billion. Partnerships, coupled with Federally-owned laboratory research, allow NETL to pursue new systems and technologies that will promote affordable and sustainable energy solutions in the future.

During FY 2011, NETL won three prestigious Research and Development (R&D) 100 Awards from *R&D Magazine*. NETL researchers have won more than 30 R&D 100 awards in the last decade. NETL employees also received three awards from the Federal Laboratory Consortium (FLC) for Technology Transfer and two Secretary of Energy Achievement Awards, the highest non-monetary awards an employee or contractor can receive from DOE.

A geothermal electric power generator at RMOTC.

Located in the Teapot Dome oil production field near Casper, WY, RMOTC (formerly referred to as Naval Petroleum Reserve No. 3) is a Government-owned and operated facility performing technology research. Its testing capabilities not only focus on oil and gas production, but also on drilling, renewable energy, flow assurance, bioremediation, wetlands creation, well completions, geology and petrophysics. The Center's partners include service companies and equipment manufacturers who test new ideas and products leading to increased recovery or reduced operating costs.

With a 9,481-acre operating field and approximately 107 producing wells in seven producing reservoirs ranging in depth from 500 to 5,000 feet, RMOTC provides organizations and universities with the opportunity to field test their theoretical assumptions and ideas in a practical environment.

Operations at Teapot Dome provide an excellent natural laboratory in which to conduct research in Enhanced Oil Recovery (EOR) and

carbon sequestration in geologic reservoirs. In addition, RMOTC provides a testing center environment ideal for testing and/or demonstrating new technologies for EOR and sequestration.

RMOTC drilling rig crew at NPR-3 (Tripping Pipe).

II. Highlights of FY 2011 ESS&H Accomplishments

In FY 2011, FE identified a number of priorities that integrate ESS&H into all aspects of the project planning and execution processes. FE specifically targeted these priorities to ensure the continuous improvement of the organization.

This section summarizes FE accomplishments in FY 2011 related to the following priorities:

- Maintaining strong sustainability programs and eliminating environmental legacies.
- Protecting workers and meeting DOE security and emergency response needs.
- Striving for "zero" injuries and illnesses.
- Achieving self-assessment and external certification of ESS&H programs.
- Building a strong ESS&H culture.
- Integrating safety into all activities as an integral practice.
- Increasing on-site quality assurance.
- Fostering a continuous learning environment.

Maintaining Strong Sustainability Programs and Eliminating Environmental Legacies

FE is committed to maintaining robust sustainability and pollution prevention programs as well as cleaning up environmental legacies from past activities. FE sites implement programs to:

- Employ strong sustainability practices.
- Aggressively pursue pollution prevention and energy efficiency goals.
- Prevent and remediate environmental legacies.

President Obama signed Executive Order (EO) 13514 in FY 2010, expanding the energy reduction and environmental performance requirements of EO 13423 while establishing an agency strategy for sustainability within the Federal government. FE sites continue to respond actively to the requirements outlined in the EO by reducing their greenhouse gas (GHG) emissions and maximizing the sustainable use of energy and natural resources in both long-term and day-to-day management decisions to meet DOE's goals.

Each of the sites is taking a broad-based approach to implementing EO 13514 by conducting activities such as:

RMOTC inactive low-temperature separation gas plant after purge and drain.

- Training and education to foster behavioral change in the office.
- Researching and implementing options for reducing GHG and waste (e.g., reducing energy intensity, developing programs to reduce employee commuting).
- Implementing planned upgrades to existing buildings to comply with High-Performance Sustainable Buildings (HPSB) guidelines and use of "green" construction specifications for future building projects.
- Continued on-site renewable power generation or purchase of credits.

During FY 2011, NETL completed a new Morgantown daycare facility and the installation of cool roofs as part of the enhancements to its sustainability program. At NETL-Morgantown, construction was completed on a 9,410 square foot daycare center that adheres to Leadership in Energy and Environmental Design (LEED) platinum standards. The facility utilizes geothermal heat pumps for heating and cooling, solar tube lighting that captures daylight and conveys it through reflective tubes into

Photovoltaic arrays and solar light tubes on the NETL-Morgantown Daycare Facility.

classrooms, and light sensors and controllers which dim the output of the electrical lighting based on ambient light levels. NETL also installed a cool roof at the Morgantown daycare facility bringing the total proportion of cool roofs across NETL sites to 10%.

To further sustainability, NETL delivered training on topics such as waste minimization, handling of Ozone Depleting Substances (ODS), and recycling. NETL's course on ODS for maintenance personnel covered topics such as inventory, tracking, leakage rate calculation, and recordkeeping. The training provided information on regulatory updates to help ensure NETL is meeting Clean Air Act requirements.

NETL also continued to emphasize the principles of the Federal Electronics Challenge which include: purchasing greener electronic products; reducing the impacts of electronic products during use; and managing obsolete electronics in an environmentally safe manner. In FY 2011, 100% of NETL's electronic products were Electronic Product Environmental Assessment Tool (EPEAT)-registered, as well as being Energy Star and Federal Energy Management Program (FEMP) designated. In addition, NETL continues to ensure that all new computers delivered in the current PC roll-out receive the proper energy-saving settings. Finally, NETL continues to use the appropriate contractors for recycling and disposal of electronic products.

NETL reduced discarded municipal solid waste by approximately 4%, to 15,755 pounds. This decrease is attributed to increased recycling. NETL also reduced hazardous waste by approximately 10% to 424 pounds. Increased employee awareness and sensitivity to minimizing the purchase of hazardous chemicals, as well as due diligence in recycling as much hazardous material as possible, led to this decrease in discarded hazardous waste.

NETL continues to implement a strong recycling program, particularly for its construction-related materials. During FY 2011, NETL recycled 1,416,719 pounds of construction-related materials (84% of total construction waste materials) as well as over 33,000 pounds of wood and almost 20,000 pounds of cardboard. NETL also recycles: toner cartridges, packing peanuts, paper, magazines, plastic containers, aluminum, newspaper, paint, tires, motor oil, cooking oil, glass, scrap metal, and batteries.

Landscaping outside Building 9 at NETL-Pittsburgh utilizes recycled cobblestones from a reconstructed street.

During FY 2011, NETL staff implemented a number of chemical clean ups and inventories across laboratories to reduce overall waste generated. For example, a number of laboratories were relocated to newly renovated buildings, and during these moves, outdated laboratory chemicals and chemicals that are no longer needed were sent for disposal or for possible use at another laboratory. NETL also inventoried a list of 31 EPA Priority Chemicals that will eventually be removed from the site and additional amounts will only be purchased if absolutely necessary.

During FY 2011, SPR took a proactive approach to sustainability and reducing greenhouse gas emissions. For example, the Bryan Mound and Big Hill sites reduced crude oil fugitive emissions by transitioning from the use of frac tanks without emission control technology to a closed pipe system. This eliminates methane emissions. In addition, SPR implemented pilot tests for energy efficient lighting (induction and light emitting diode (LED)), replaced 12 conventional gasoline vehicles in its fleet with hybrids, and developed a process for storm water run-off which will help the site to meet EPA's guidelines for storm water management.

The SPR draw down during the summer of 2011 resulted in an increased consumption of energy and potable water. Additional energy consumption and industrial fugitive emissions associated with cavern degasification activities led to a substantial increase in Scope 1 and 2 greenhouse gasses.

SPR also continues to make progress by substituting products for more environmentally preferable ones. For example, SPR reviews all chemicals prior to use on the site through the Qualified Products List (QPL) to help to reduce the potential for hazardous waste. During FY 2011, both Environmental and Safety reviewed 190 new chemicals submitted for inclusion on the QPL this fiscal year. Of all the chemicals, 146 were approved unconditionally, and 40 were approved with conditions (one time use only, specific use only, contractor use only, etc.), four were rejected. SPR also requires approval of waste plans prior to any construction to prevent the generation of hazardous wastes.

SPR also received the EStar Award for its "Buy it Green" (BIG) process to ensure that SPR procurement processes are aligned with EO 13423. SPR's goals for purchasing environmentally preferable products, which include EPA Comprehensive Procurement Guidelines (CPG) products, USDA BioPreferred products, EPEAT registered electronics, and Energy Star products, were met through the use of the BIG Lists, QPL, and other processes and reviews in the SPR procurement process.

Lastly, SPR implemented tighter monitoring and controls of sanitary and construction waste as part of EO 13514 implementation. Enhanced communication with site personnel to review and prepare waste generation documentation helped to identify disposition prior to material generation. SPR's environmental group also utilized onboarding sessions to introduce new SPR employees to the SPR Environmental Culture, communicating the message that SPR will operate only in an environmentally responsible manner.

RMOTC south composting facilities for remediation of oil contaminated soil.

During FY 2011, RMOTC took numerous steps and began new initiatives to limit pollution and meet sustainability standards. For example, RMOTC's renewable energy consumption is more than double the 2013 DOE requirement. Renewable energy is generated from a

ORMAT geothermal facility at RMOTC.

geothermal power unit and other wind and solar sources. RMOTC is also making progress against its water efficiency goals by planning to install water-saving bathroom fixtures.

To ensure compliance with waste disposal requirements, RMOTC implemented procedures for the disposal of refined petroleum products and material contained in NPR-3 sumps. RMOTC also ensured proper secondary containment and signage on hazardous materials. Lastly, RMOTC focused on composting more materials during FY 2011 by implementing a process for control and operation of composting facilities, as well as developing a procedure for construction, operation, and maintenance of Composting Facilities at NPR-3.

RMOTC was awarded the Rocky Mountain Power's recognition for supporting the Blue Sky Renewable Energy Program in Calendar Year 2010.

Protecting Workers and Meeting DOE Security and Emergency Response Needs

FE continued to increase protection of its personnel and site infrastructure in an effort to identify and confront ongoing and emerging threats. During FY 2011, FE strengthened employee and site security by:

- Continuing to strengthen the security of FE facilities and infrastructure.
- Ensuring compliance with DOE regulations and policies.
- Hosting organization-wide emergency response exercises, training, and drills to prepare for potential security threats or emergency situations.

During FY 2011, SPR took a number of actions to reinforce site security. The SPR sites completed physical security enhancements as identified in the Site Security Plan (SSP). Additional protection was installed at critical facilities, producing substantial cost savings.

To enhance security personnel skills and capabilities, SPR initiated "active shooter" security awareness training and Security Police Officer (SPO) II training. The Protective Force was trained and exercised in effective response

Members of SPR's Emergency Response Team participate in a fire suppression drill at a Beaumont, TX fire academy.

to an active shooter incident. SPR employees also received security awareness training on how to protect themselves against an active shooter both at the workplace and when off-duty in the community. In addition, SPR expanded SPO II training to include an on-site exercise. This exercise ensures a successful tactical defense of the site and protection of the SPR mission critical infrastructure.

SPR also continued to place a high priority on emergency response preparedness. For example, the SPR Support Responder program was recognized as an innovative best practice receiving the 2011 Office of FE "Excellence in ESS&H Award." This program trains the protective force to assist the Emergency Response Team (ERT) in the handling of fires, oil spills, and medical crises. This all-hazards approach provides a high value return in risk mitigation.

SPR Emergency Response Team members participate in a personnel decontamination exercise at the ERT Academy.

During FY 2011, SPR focused on emergency management activities designed to prepare for natural disasters, pandemics, and other large-scale emergencies. For example, SPR implemented a new Mass Notification System to alert emergency responders through a web-based application that can reach multiple communications devices in a near simultaneous

An officer at NETL-Pittsburgh inspects an arriving vehicle.

fashion. This system is beneficial in providing the SPR employee population with informational updates and event notifications that improve accountability and continuity of operations planning. SPR also focused on using the Incident Command System (ICS) in responding to incidents. For example, SPR established a list of contractual providers to support ICS participants on this year's oil spill Preparedness for Response Exercise Program (PREP) exercises. The contractors mirrored each section chief and the incident commander offering professional assistance to better achieve ICS responsibilities.

During FY 2011, NETL focused on enhancing site security and infrastructure. As of FY 2011, all NETL sites now have Homeland Security Presidential Directive (HSPD)-12 compliant access control technology in place. Meeting this requirement provides the tools necessary to better manage access to and activities on the sites as well as increasing the safety of staff and visitors and the security of government property. The physical access control systems for NETL-Morgantown and NETL-Pittsburgh were transitioned to this new technology in FY 2011; NETL-Albany was successfully transitioned in FY 2010. NETL also saw its classified facility closed and decommissioned during September 2011. This closure requires an increase in attention to the security of the remainder of the site.

A continued emphasis was also placed on emergency management at NETL through continued emergency response training, tests, and improvements. NETL revised procedures based on the National Incident Management Systems (NIMS) compliance study conducted during FY 2010. For example, the method NETL uses to assess bomb threats and facility safety was thoroughly tested and reviewed and revisions to the procedure were completed. This resulted in the release of a new procedure which made previously official-use-only information available to all employees so they could be compliant with response strategy. In addition, all NETL sites conducted training, exercises, and drills, and NETL-Albany conducted a no-notice exercise (NNX).

Basic Emergency Care (BEC) training at RMOTC.

During FY 2011, RMOTC improved its physical security system by changing all NPR-3 padlock combinations. RMOTC also changed employee access codes from four digits to five digits for keypad-controlled doors. All critical RMOTC door locksets were re-keyed as well.

Lastly, RMOTC developed and conducted an annual emergency exercise and Basic Emergency Care (BEC) training. RMOTC also completed formal Mutual Assistance Agreements with local emergency response teams in order to better respond to incidents.

Striving for "Zero" Injuries and Illnesses

FE's commitment to employee safety is demonstrated by its dedication to strive for zero accidents and injuries in the workplace. This has been accomplished through the implementation of initiatives that combat and mitigate employee error, procedures, and equipment malfunction. These targeted initiatives focus on improving sites by:

- Conducting safety training to refine employees' skills.
- Ensuring the safety of workers via observation and oversight.
- Improving worker safety protocols and procedures through proactive management, addressing both new and recurring safety issues.
- Promoting employee health and wellness through preparedness and prevention.
- Continuing to upgrade facilities and site infrastructure to ensure a safe work environment.

During FY 2011, SPR conducted direct oversight of high-risk activities to ensure continued adherence to safety requirements. For example, SPR stationed a dedicated safety professional at the work-site of two work-over rigs: one safety professional performs routine work-overs and one performs remediation. The safety professionals provided safety and industrial oversight during daily operations at higher-risk activities. Safety professional oversight allowed safety problems to be recognized and resolved before negative consequences occurred.

SPR also designed and developed a "Fit for Duty" program that will be implemented with new hires beginning in early December 2011 (FY 2012). The "Fit for Duty" program ensures that new hires are physically capable of safely performing their job tasks. When a new employee is chosen to fill a job with specific

NETL-Pittsburgh HazMat Team practicing confined space rescue techniques.

physical requirements, he or she is tested to ensure that the physical job qualifications are met. SPR anticipates a reduction in musculoskeletal injuries as a result of the “Fit for Duty” program.

During FY 2011, NETL conducted a major safety exercise at each site as well as smaller training drills to ensure correct and efficient program operation. NETL also initiated an Activity Hazard Analysis (AHA) process with SOD via NETL Procedure 440.1-36, *ES&H Requirements for Offsite Contractors Working at NETL*. The use of AHAs at critical points during construction aid in coordination and communication between contractors, subcontractors and NETL to ensure that job hazards are analyzed, mitigated, and covered. This process was also used on limited in-house activities and will likely be added in the future to NETL procedures for other internal processes, not just construction.

During FY 2011, RMOTC also placed a high priority on reducing injuries and illness. RMOTC promoted safety awareness on confined space entry, ammonia safety, incident reporting, and risk assessment. RMOTC also developed new standard operating procedures (SOPs) on preparing for new construction, design, commissioning, process safety startup review, hazards operational review, and project planning and execution processes. These SOPs will provide better planning for new projects, improve cost effectiveness, and reduce safety risks.

Lastly, all RMOTC personnel participated in the annual safety awareness day, and both management and new employees were briefed on safety resolutions during FY 2011.

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

Internal and external ESS&H assessments, as well as third-party certifications, assist FE in identifying best practices, recognizing exemplary performance, and targeting areas in need of improvement. Assessment and recognition of ESS&H programs demonstrate FE's commitment to safety, security, and environmental soundness.

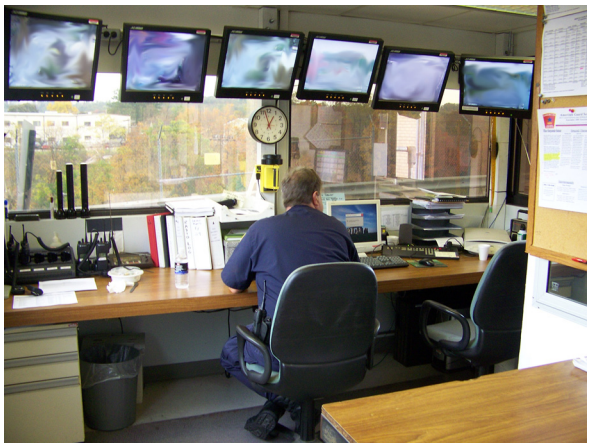
During FY 2011, SPR used external certifications and recognition to identify areas of leadership and innovation at FE sites. For example, SPR’s four storage facilities maintained Occupational Safety and Health Administration (OSHA) and DOE Voluntary Protection Program (VPP) participation as Star sites. In addition, SPR maintained its ISO 14001 and 9001 certifications.

SPR also continued to receive awards demonstrating the site’s commitment to ESS&H. During FY 2011, SPR participated in the international Robert W. Campbell program,

SPR received a 2011 Excellence in ESS&H Award for the “Support Responder Program.” From left: Duane Johnson, Hoot Gibson, Jordan Jones, Patrick Neal, Rick Shutt, and Tommy Long. Left inset: Jerry Packard. Right inset: Bryan Dunlap.

which presents annual awards to companies for successful integration of ESS&H into business systems. In addition, SPR received an ESS&H Award for the "Support Responder Program," which was developed to train members of the SPR protective force to act as support responders to assist the Emergency Response Team with site emergencies. The specialized instruction is included as part of the Pro-Force's regular annual training, which results in significant cost savings. SPR also received awards for its commitment to ESS&H from the National Safety Council (NSC). Lastly, the New Orleans and Bayou Choctaw sites received an Award of Honor from the NSC South LA Chapter, and the New Orleans, Bayou Choctaw, and Big Hill sites received the National Safety Council's Occupational Excellence Achievement Award.

NETL also continues to maintain external certifications including ISO 14001 and OHSAS 18001. During FY 2011, a third party auditor



NETL-Pittsburgh's security control center with advanced video surveillance arrangement.

conducted surveillance audits at NETL-Morgantown, NETL-Pittsburgh, and NETL-Albany. All findings from previous certification and surveillance audits were closed out as of July 31, 2011.

During FY 2011, NETL conducted a number of audits in two key areas: security and hazardous waste. Both NETL-Morgantown and NETL-

Amy Taylor, John Calder, and Wes Lintz accept the 2011 Excellence in ESS&H Award for RMOTC's "Control of Work Policy."

Albany conducted self-assessments to review the Safeguards & Security Awareness Programs. These self-assessments reviewed the entire program including program management, protective force, physical security, information protection, personnel security, and unclassified visits and assignments by foreign nationals. NETL also conducted an external assessment of its hazardous waste program and facilities at NETL-Morgantown and an external assessment of hazardous waste, universal waste, and chemical management at NETL-Albany. Both assessments resulted in key findings and implemented actions to improve waste classification, storage, and disposal.

During FY 2011, RMOTC conducted an ISM management review and had a DOE HQ FE-7 site assistance visit. RMOTC also submitted its Control of Work Program for the FE Excellence in Environment, Security, Safety, and Health (ESS&H) Award. RMOTC also received a 2011 Excellence in ESS&H Award for it's "Control of Work Policy," which provides a formal method for controlling work from a safety, efficiency, and environmental standpoint to reduce the number of accidents onsite.

Building a Strong ESS&H Culture

During FY 2011, FE sites participated in community exercises and volunteering, built on partnerships with other organizations, and

emphasized the importance of continuous training and development to provide employees with a comprehensive understanding of operations, work culture, and performance expectations.

SPR engaged in national outreach and benchmarking through active participation in the new Executive Edge program of the NSC. SPR employees and their families volunteered in a Lake Pontchartrain Beach Sweep by removing trash from a local bayou which connects to the lake. Each year the number of SPR volunteers at this event grows, and this year's event was so successful that SPR will request a larger area to "sweep" in 2012. SPR also increased recycling efforts by participating in America Recycles Day and continuing to promote recycling of all recyclables, such as its annual Mardi Gras bead recycling campaign.

To build a stronger internal ESS&H culture, SPR improved its onboarding program for new hires to better explain and stress the ESS&H culture of SPR and its values and activities. SPR also conducted all-hands meetings at sites, using them as a forum to discuss ongoing safety and health issues, solicit employee input, and provide an opportunity for direct access to senior management.

NETL also continued to build a strong ESS&H culture among employees. In observance of Earth Day, April 22, 2011, employees visited common areas at each site where vendors presented information on local recycling, carpooling, bicycling, and farmer's markets. Information was provided on various clean-up days and recycling events for the communities surrounding the laboratories.

Retired RMOTC Field Ops Director Cecil Foote gets blood drawn during the May 2011 Wyoming Health Fair Blood Draw at NPR-3.

In FY 2011, NETL also revised its internal ESS&H webpage to make it more user-friendly and informative for site personnel. The revisions focused on identifying points of contact in the key areas of ESS&H, providing clearer descriptions of programs, and removing outdated information. NETL staff also participated in a monthly training program for technicians to promote ESS&H considerations in all phases of work.

During FY 2011, RMOTC maintained a strong ESS&H culture by including management in safety training and resolving safety issues. Lessons learned were shared with RMOTC personnel during morning meetings as were near misses so that they would not be repeated. RMOTC also incorporated the control of work process into all field jobs. Lastly, RMOTC practiced community outreach by conducting a blood drive and other activities.

Integrating Safety Into All Activities as an Integral Practice

Integrated Safety Management (ISM) offers a systematic method for integrating ESS&H into all steps of the work planning and implementation processes. ISM's approach incorporates seven verification criteria into all operations, helping to maintain a standardized ESS&H process. During FY 2011, each FE site received guidance and support on further developing their ISM programs.

NETL incorporated safety into on-site practices by focusing heavily on safety in construction during FY 2011. NETL ensured a higher standard of safety for construction contractors and managed enhanced construction contract oversight through the assignment of ESS&H representatives to all construction contracts at

each site. These representatives are part of project evaluation teams and provide guidance concerning construction inspections. These assignments not only add value to the process, but also provide proper emphasis of ESS&H requirements.

In addition, NETL initiated an activity hazard analysis to aid in coordination and communication between contractors and subcontractors and NETL to ensure that job hazards are analyzed, mitigated, and covered in order to minimize project risk. It is likely that this process will be incorporated into future NETL procedures for internal processes (not just construction).

Lastly, FE-7 conducted a staff assistance visit to ensure that NETL conforms to DOE's ISM and other HQ requirements. The program was declared conformant on April 12, 2011.

SPR maintained open communication with DOE and contractor senior management through the Tripartite Safety Council. The Council meets twice a year and representatives from the operation and maintenance (O&M) contractor's and the security contractor's hourly personnel participate in the meetings. During these meetings, they have the opportunity to bring safety and health issues that have not been resolved through normal channels directly to the attention of the DOE Project Manager and the O&M Project Manager.

SPR also made procedural changes to further reiterate its commitment to safety. For example, any changes to the budget require an assessment of their impact (positive or negative) on SPR ESS&H systems and processes. In addition, SPR senior management also received additional training on the behavioral safety process.

RMOTC has also integrated safety considerations into its activities. During FY 2011, RMOTC performed a Job Safety Analysis (JSA) for each required project. RMOTC also shared safety topics via e-mail with all employees on

Mike Curtis, Terry Sullivan, Wes Riesland, Bob Grann, and Bob Watson preparing to complete a management level JSA and lifting permit for replacing tanks at RMOTC.

various safety topics. Additionally, RMOTC reviewed and revised established standard operating procedures for field operations to ensure safety measures were being addressed. Lastly, FE-7 conducted a site assistance visit to RMOTC to ensure that RMOTC conforms to DOE's ISM and other HQ requirements.

Increasing On-Site Quality Assurance

Every FE task is subject to a rigorous, systematic quality assurance (QA) process that validates its alignment with the organization's mission and reflects the highest standards of excellence. The QA process ensures employee and customer confidence in each product and service offered by FE.

NETL created and staffed a Quality Manager position in the Office of Institutional Operations specifically to focus on quality assurance at a corporate level. NETL also formed a group to discuss the coordination of lessons learned. These procedures are being revised and site support contractors were scheduled for training. Additionally, NETL's directives are being systematically revised to reflect changes in the organization and evolution of its programs.

During FY 2011, SPR established an electronic lessons learned database with notification to SPR personnel of each new lesson learned

posted. Currently, a performance improvement team is improving the database by consolidating the operating experience, counterfeit parts, and lessons learned programs into one database for tracking and dissemination throughout the organization. These efforts ensure that SPR maintains its high standards of excellence in all operations. Additionally, SPR implemented continuous monitoring of the controls on the SPR Cyber Network in accordance with the SPR Program Cyber Security Plan.

RMOTC increased quality assurance by evaluating and improving the work process, "Control of Work." RMOTC also conducted four management assessments: control of work, rolling stock, ISM, and energy isolation.

Command post at the NETL-Albany site during the annual emergency exercise.

Fostering a Continuous Learning Environment

To continuously improve performance, FE fosters a learning environment that emphasizes the importance of training, development, and the incorporation of best practices into operations.

During FY 2011, SPR focused on all aspects of a continuous learning environment: training, incorporating best practices, and ensuring that all employees understand safety and health requirements. SPR designed a new medical exercise area at each site to validate the effectiveness of the Emergency Response Team (ERT) and Protective Force Support Responders in handling and processing a patient to the local agency Emergency Medical Service (EMS). In order to discuss ongoing safety and health issues, solicit employee input, and to provide an opportunity for direct access to senior management, SPR conducted "all hands" meetings at the sites for all site employees. Additionally, SPR created a team to revise the O&M contractor's safety and health directive document, the Accident Prevention Manual. The team included personnel that are internal customers from every site and from across directorates. This objective forum served as a means of disseminating information about safety and health requirements.

RMOTC also focused on training and development in FY 2011. RMOTC's Technical Assurance Department conducted new employee orientation and training to familiarize new employees with site safety and operations. RMOTC also conducted Environmental Management System training for all employees in order to better promote environmentally-friendly decision making and activities.

During FY 2011, NETL ESS&H staff participated in a monthly training program for technicians to promote ESS&H considerations in all phases of work. While the training can address any aspects of the Division, several of the training sessions focused on environmental issues. Specifically, topics included: waste minimization, handling of ozone depleting substances, and recycling.

III. Summary of ESS&H Performance

FE is committed to the goal of reducing and ultimately eliminating injuries, illnesses, and environmental releases. This section highlights progress made during FY 2011 to improve FE-wide ESS&H performance measures. Data related to FE's and DOE's health and safety performance represent all workers, including Federal employees, contractors, and subcontractors, where available. Safety and health data and accident root cause information 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 and Processing System (ORPS). Data on environmentally preferable purchasing and hazardous and sanitary waste generation were obtained directly from FE sites. Appendix A summarizes site-specific ESS&H quantitative performance information, including comparisons of FE performance to DOE sites. Please note that all data included in this report are as of May 1, 2012.

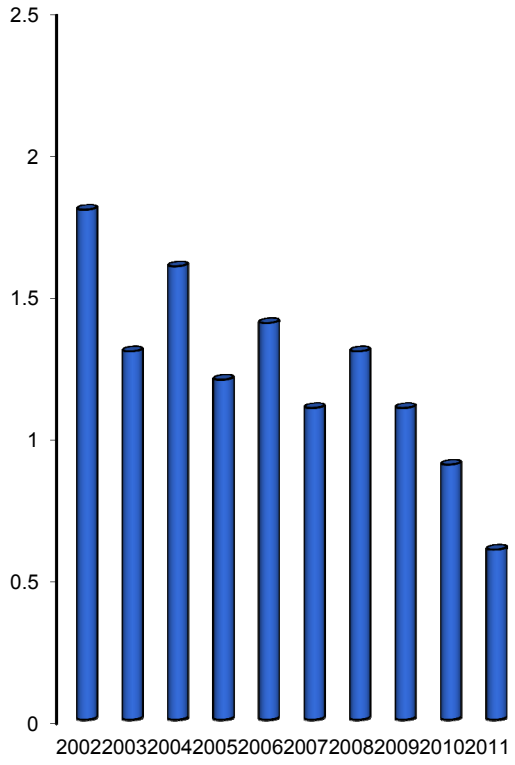
Since 2010, FE has suffered two fatalities at its Bryan Mound site. As a result, Action Investigation Boards (AIBs) were convened to identify root causes and present the findings to the SPR in a context that could be used to rectify and prevent these incidents in the future. The findings of the AIB are not contained in this annual report; however this annual report would be remiss not to mention briefly what occurred at Bryan Mound, and how FE has been diligently working to correct the issues uncovered in both investigations. The SPR has been specifically addressing each of the issues raised by the AIBs' recommendations and correcting them as quickly as possible. The SPR has also made numerous changes in procedures and practices during the last two years that are not in the reports. In addition, SPR decided to hire an additional safety professional to help work through the AIB recommendations and help oversee safety at the numerous sites. FE is also working on new performance measures slated for 2012. We are trying to strengthen our safety culture to empower both employees and management in reducing the frequency, severity and scope of future occurrences. As part of this push towards a new safety culture, FE has instituted the "Heroes for Zero" campaign that is based on zero tolerance for accidents and includes quarterly metrics. Without looking to the past, and acknowledging our mistakes, we cannot hope to rectify them in the future.

Total Recordable Case Rate Lowest in the Past 10 Years

The Total Recordable Case (TRC) rate is based on the number of injuries and illnesses incurred by Federal and contract employees in a given

Figure 1

FE TOTAL RECORDABLE CASE (TRC) RATE
cases/100 workers



Number of injury and illness cases per 100 workers
Source: Computerized Accident/Incident Reporting System

year that are serious enough to result in medical attention, loss of consciousness, restriction of work activity, or time away from work. 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 1 year.

In FY 2011, the TRC rate for FE was 0.6, which is the lowest rate in the past 10 years of recording with only 17 recordable cases. In addition, FE-HQ recorded one case during FY 2011. FE's TRC rate was significantly lower than the DOE-wide TRC rate of 1.1. During FY 2011, the TRC rate decreased from 1.3 to 0.8 (a 38% decrease) at SPR and fell 17% to 0.5 at NETL. RMOTC's TRC rate increased to 1.5 due to one accident in the first quarter of FY 2011.

FE's 17 recordable cases are 23% fewer than in 2010 and about 64% fewer than 10 years ago in 2002. The primary causes of the accidents were employee error, design/material failure, and "other," of which most were caused by employee falls or unsound footing.

Employee error and design/material accounted for a majority of recordable cases in the last year. Improper lifting techniques and slips and falls were the most common causes of employee error while the causes of design/material incidents varied. FE continues to take steps to reinforce existing safety training and awareness by addressing safety best practices in all-hands meetings, providing additional education on heavy lifting, promptly attending to slippery or uneven areas, and posting signs to remind employees to exercise caution in high-risk conditions.

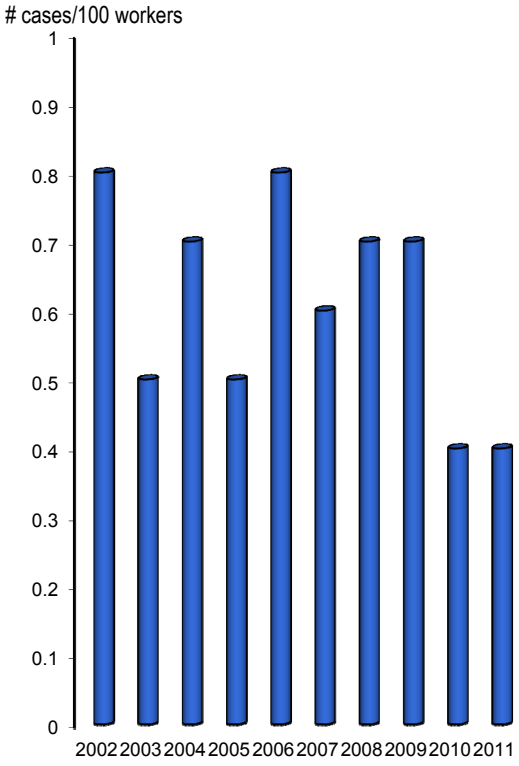
In addition, during the fourth quarter of FY 2011, a subcontractor fatality was reported at SPR's Bryan Mound site. The employee was using a riding mower when the incident occurred. On September 14, 2011, the Galveston County Medical Examiner's Office issued a preliminary cause of death statement identifying the cause of death as blunt force trauma. Corrective actions continue to be implemented at the site.

Days Away, Restricted, or On-Job Transfer Case Rate Tied for Lowest in the Past 10 Years

FE's Days Away, Restricted, or On-Job Transfer (DART) case rate represents the number of work-related injuries that resulted in employees missing days of work, returning to work on restricted duty, or working in a different function normalized to hours worked. FE's performance in this category has serious consequences and cost implications because the organization loses the productivity of injured employees while they recuperate. In FY 2011, FE's DART case rate was 0.4, tying last year as the lowest rate in the past 10 years, and slightly less than the DOE-

Figure 2

FE DAYS AWAY, RESTRICTED OR ON-JOB TRANSFER (DART) CASE RATE



Number of cases resulting in lost workdays or workdays with restricted duty or transfer, per 100 workers

Source: Computerized Accident/Incident Reporting System

wide DART case rate of 0.5.

During FY 2011, SPR continued recent years' significant progress in reducing their DART case rates. SPR's DART case rate fell from 0.6 to 0.5. NETL's DART case rate increased slightly from 0.3 to 0.4 and RMOTC's DART case rate increased from 0 to 1.5. A total of 12 accidents resulted in lost workdays or days on restricted duty or job transfer, a slight increase of 9% from FY 2010. FE-HQ also reported one accident resulting in days away from work.

Days Away, Restricted, or On-Job Transfer Rate Continues Downward Trajectory

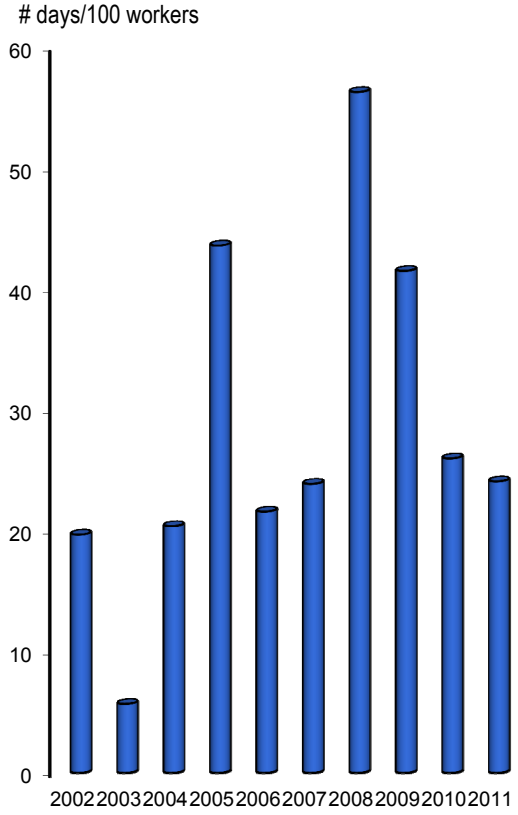
The DART rate is the actual number of lost workdays, days of restricted work activity, or job transfer resulting from these injuries normalized to the number of hours worked by 100 employees. This rate is used as an indicator of accident severity. FE's DART rate of 24.1 days lost per 100 workers is 7% lower than in FY 2010, suggesting that both the number and the severity of cases decreased. FE had a total of 642 lost workdays, days on restricted duty, or transfer. In addition, FE-HQ reported one accident resulting in three lost workdays, days on restricted duty, or transfer.

During FY 2011, FE's overall DART rate continued its downward trend since 2008. SPR's DART rate decreased from 50.6 to 32.5. NETL's DART rate rose from 12.4 in FY 2010 to 17.6 in FY 2011 and RMOTC's DART rate rose from 0 in FY 2010 to 54.5 in FY 2011.

In recent years, injuries have been most commonly sustained to joints and the lower back. The cause of these injuries has typically been lifting heavy materials. As a result, FE examined the use of proper lifting equipment, undertook efforts to ensure that employees followed safety procedures, and ensured that supervisors continued to instruct their employees on safe on-the-job practices.

In addition to the fatality previous discussed, there were four other major accidents in FY 2011 (i.e. those requiring more than 40 days of lost or restricted work activity), three of which were caused by tripping on uneven ground. At both NETL and SPR, uneven exterior walkways caused falls that resulted in over 40 days of lost or restricted work activity. In those cases, the uneven ground is being repaired and work procedures reviewed to include prior walkthroughs where necessary. The fourth major injury occurred when a NETL employee was attempting to lift a heavy object when the slat he was standing on broke, causing him to fall and sustain a pulled groin. Non-major accidents were frequently attributable to falls associated with inclement weather (e.g., ice).

Figure 3
FE DAYS AWAY, RESTRICTED OR ON-JOB TRANSFER (DART) RATE



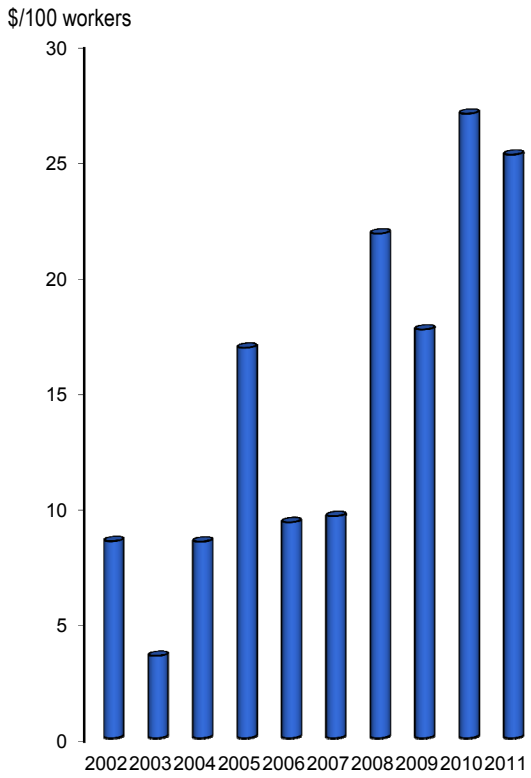
Number of lost workdays or workdays with restricted duty or transfer per 100 workers

Source: Computerized Accident/Incident Reporting System

Occupational Safety and Health Cost Index Remains High

The Occupational Safety and Health (OSH) Cost Index is a performance indicator that represents the normalized estimate of the costs of injuries incurred by FE sites. In FY 2011, FE's cost index was 26.86, a decrease of 1% from FY 2010, but still remains high. This metric from the last two years can be largely attributed to two deaths, one in the fourth quarter of both FY 2010 and FY 2011, at the Bryan Mound site of SPR.

Figure 4



Estimated cost of injuries and illnesses per 100 work hours
Source: Computerized Accident/Incident Reporting System

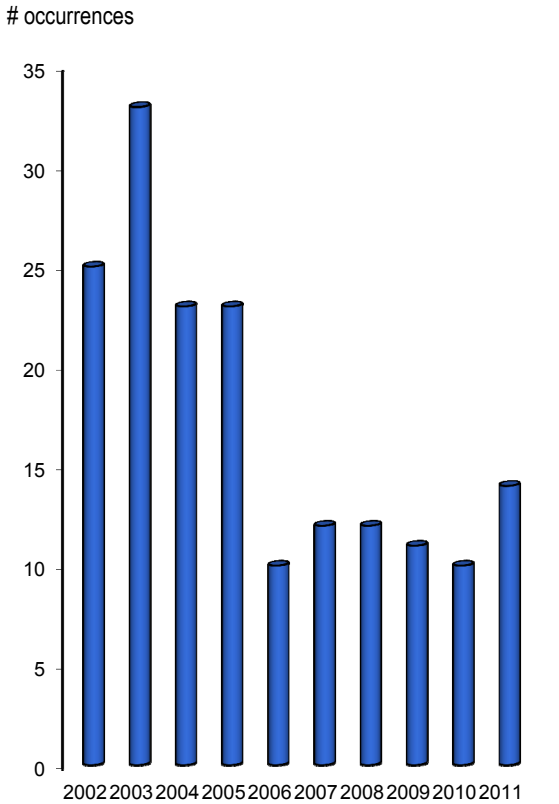
During FY 2011, NETL's cost index decreased by about 7% as a result of decreases in both the number of cases and days away from work or on job transfer. SPR's cost index also decreased slightly by about 2% as a result of fewer days away from work or on job transfer. However, RMOTC's cost index increased to 12.41 as a result of one accident with 36 days of restricted duty.

Operational Occurrences Rise, but Remain Below 10-Year Average

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 2011, there were 14 operational occurrences at FE sites, higher than FY 2010 but still below the significantly higher range of total occurrences prior to 2006.

Most operational occurrences were incurred by NETL and RMOTC, with 8 and 5, respectively,

Figure 5



Number of operational events or conditions that adversely affect or may affect DOE or contractor personnel, the public, property, the environment, or the FE mission
Source: Occurrence Reporting and Processing System

an increase from 4 each in FY 2010. In the case of NETL, this number was enlarged by issues stemming from its Pittsburgh Federal site being shared with the National Institute of Occupational Safety and Health (NIOSH). Three occurrences stemmed from water line problems on NIOSH premises causing the release of turbid water. If NIOSH-related occurrences were excluded, NETL's total number of operational occurrences increased by only one.

Construction issues contributed to two of NETL's operational occurrences. During demolition work at the Pittsburgh site, sheets of plywood used as temporary flooring caught fire, likely due to a piece of hot metal lodged between two boards. At NETL's Morgantown site, roof replacement efforts uncovered asbestos disposal violations.

Greater communication among construction crews and site neighbors, additional employee training, and adherence to site safety plans should reduce the number of operational occurrences for FY 2012.

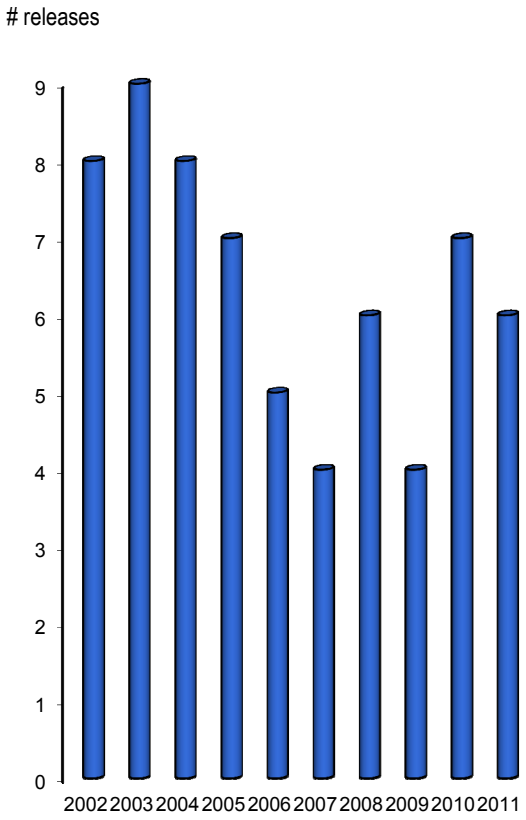
Number of Environmental Spills and Releases Decreases

Environmental releases represent the total number of spills, leaks, and discharges of hazardous substances, oil, and regulated pollutants into the environment that must be reported. During FY 2011, FE sites reported 6 environmental spills and releases, one fewer than FY 2010. RMOTC and NETL both had 3 environmental releases/spills, though NETL's total includes those from their Pittsburgh site neighbors, NIOSH.

In January, a RMOTC water disposal facility experienced a leak when a valve failed; in March, an oil vapor ignition resulted in the spill of 60 barrels of crude oil; and in June, staff discovered a small leak in an aged and unused flow line. The spill, estimated at 5 barrels, was largely contained in a small natural depression before cleanup.

Figure 6

FE ENVIRONMENTAL RELEASES



Number of spills, leaks, and discharges
Source: Occurrence Reporting and Processing System

One Regulatory Violation in FY 2011

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 2011, FE sites had one regulatory violation. The Environmental Protection Agency (EPA) Region 8 office issued a notice of violation to RMOTC after improperly responding to a positive test for total coliform in a potable water source. While 40 CFR 141 requires that five subsequent samples be taken, only four were submitted by RMOTC, resulting in a technical violation. RMOTC resubmitted a five-part sample cycle, the

analyses of which tested negative for total coliform.

Table 1

FE REGULATORY VIOLATIONS

Fiscal Year	# of Violations
2001	2
2002	3
2003	3
2004	4
2005	3
2006	0
2007	1
2008	0
2009	1
2010	1
2011	1

Source: Occurrence Reporting and Processing System with Field Site verification

Number of Security Incidents Falls to Zero

The security incidents performance metric refers to the total number of security incidents that are reportable under DOE Manual 470.4-1 Impact Measurement Index (IMI) criteria. The IMI severity level is based on a scale of 1-4 (1 the most severe and 4 the least severe). During FY 2011, there were no reportable security incidents.

Table 2

FE SECURITY INCIDENTS

Fiscal Year	# of Incidents
2008	3
2009	3
2010	2
2011	0

Source: Field Sites

Total FE Hazardous Waste Generation Decreases

During FY 2011, the amount of hazardous waste generation rose 9% at NETL, fell 8% at SPR, and fell 97% at RMOTC, resulting in a total FE-wide decrease of 16% from 12,982 pounds in FY 2010 to 10,830 pounds in FY 2011.

At RMOTC, hazardous waste fell significantly after FY 2010's summertime cleanup activities, from 2,990 pounds to 91 pounds in FY 2011.

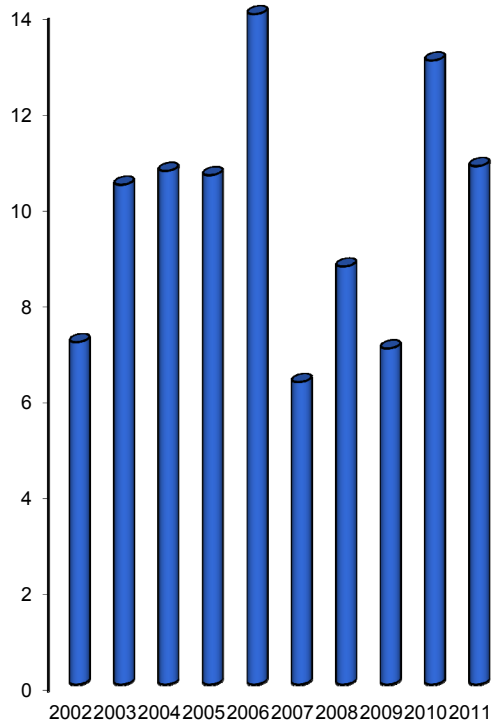
SPR generated a total of 230 pounds of hazardous waste, an 8% decrease from the previous year. SPR's hazardous waste predominantly consisted of spent laboratory wastes from the SPR Texas sites.

NETL increased its hazardous waste generation by 9% to 10,509 pounds of routine hazardous waste generation, which includes 10,563 pounds from routine activities and 6,649 pounds from clean-up. A total of 6,703 pounds was successfully recycled.

Figure 7

FE HAZARDOUS WASTE GENERATION

1000 lbs.



Hazardous wastes are wastes defined as hazardous under EPA's RCRA regulations

Source: Field Sites

Sanitary Waste Generation Increases

Sanitary waste is defined as all waste generated, excluding EPA-regulated hazardous wastes and wastes that are recycled. In FY 2011, FE sites generated a total of 1.17 million pounds of sanitary waste, a decrease from FY 2010 and the fourth-lowest amount in the last 10 years.

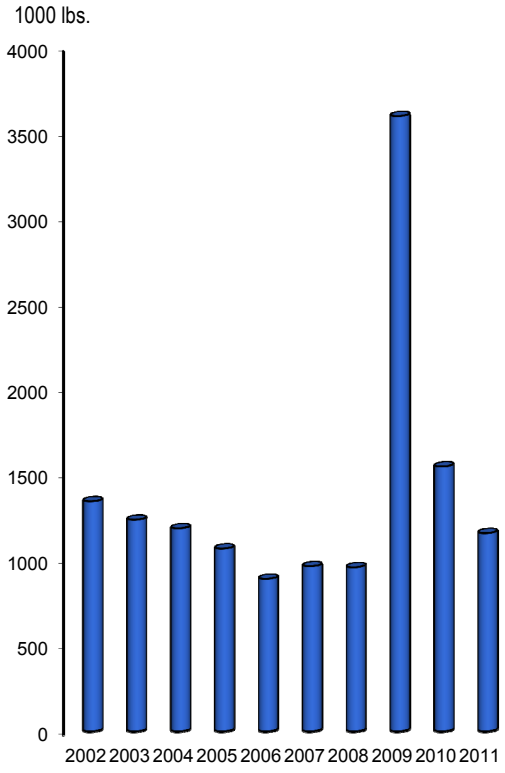
RMOTC has seen its sanitary waste generation grow over the last two fiscal years due to general field clean up to minimize environmental risk. During FY 2011, RMOTC had a total of 265,331 pounds of solid waste sent to a solid waste facility and 20,435 pounds that was recycled.

SPR saw a marked decrease in the generation of sanitary waste, which included construction debris, drilling mud and soil cuttings, materials contaminated with brine and/or crude oil, and non-hazardous chemical solutions. Their total fell 72% over FY 2010 to 187,728 pounds.

During FY 2011, NETL generated 713,035 pounds, an increase of 1%. Aggressive recycling programs allowed NETL to significantly bring down its numbers in FY 2010, and to keep them down in FY 2011.

Figure 8

FE SANITARY WASTE GENERATION



Sanitary wastes are defined as all wastes generated, excluding RCRA hazardous wastes and recycled wastes

Source: Field Sites

FE Continues to Have Strong Environmentally Preferable Purchasing

EPA requires Federal agencies to purchase products made with recycled materials unless those products cannot be procured in a reasonable timeframe or if recycled products do not meet performance targets. FE's procurement of recycled materials ensures regulatory compliance and reflects its emphasis on environmental leadership.

During FY 2011, FE sites built on gains made in FY 2010. RMOTC developed and implemented an Environmentally Preferable Purchasing plan, including all paper products purchased containing at least 30% post-consumer product. Office electronic and computer equipment is purchased with "gold" and "silver"-rated Energy Star appliances.

For NETL, 78% of its janitorial supplies purchases are green, which excludes only disinfectants, office furniture and equipment that focuses on recycled content, and electronic equipment that satisfies Environmentally Preferred Electronic Assessment Tool (EPEAT) standards. In addition, NETL uses cocoa-shell mulch and purchases ethanol (E85) for its fleet.

SPR met its environmentally preferable purchasing goals through the use of "Buy it Green" (BIG) Lists, the Qualified Products List (QPL), and other processes and reviews that have been institutionalized in the SPR procurement process.

IV. Summary of ESS&H Sustainability Performance

The Department of Energy (DOE) strives to set an example for sustainability by improving environmental, energy, and economic performance while reducing greenhouse gas (GHG) emissions by 2020. This section highlights progress made by FE during FY 2011 to meet agency-wide sustainability goals such as reducing GHG emissions, energy intensity, and potable water intensity, increasing the use of renewable energy, decreasing fleet petroleum use, and ensuring the continued development of new or upgraded green buildings. The seven metrics presented in this section align with DOE's Office of Management and Budget (OMB) Scorecard on Sustainability/Energy. Data on these metrics were obtained from the U/S Energy Analysis Workbook produced by DOE's Sustainability Performance Office (SPO). Please note that all data included in this chapter of the report are as of February 29, 2012.

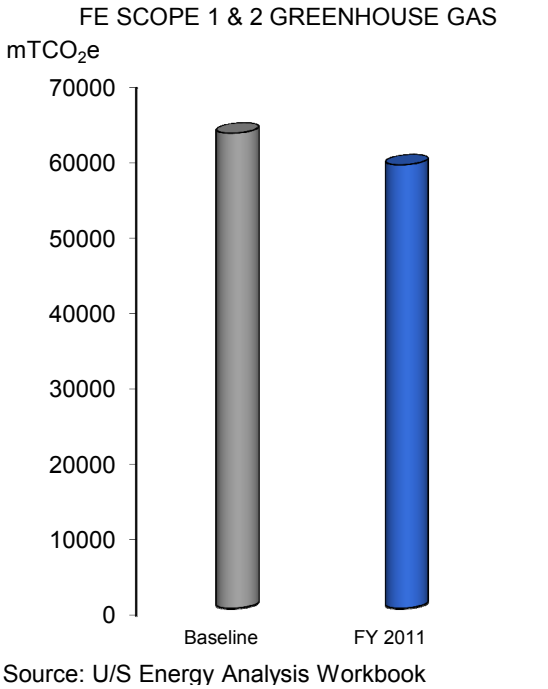
Scope 1 & 2 GHG Emissions Decrease Against the FY 2008 Baseline

Executive Order (EO) 13514 requires that each agency set a percentage reduction target for scope 1 and 2 GHG. DOE set a goal of reducing scope 1 and 2 GHG by 28% by FY 2020 against the established FY 2008 baseline. Scope 1 GHG emissions are those emissions from sources that are owned or controlled by the Federal agency and scope 2 emissions are direct GHG emissions resulting from the generation of electricity, heat, or steam purchased by a Federal agency.

In FY 2011, the scope 1 and 2 GHG emissions were 58,775.2 metric tons (mT) CO_2e against the FY 2008 baseline of 62,976.1 $mTCO_2e$. While falling short of DOE's 14% goal, FE still achieved a significant reduction of 6.7%. This continues FE's significant progress in reducing its scope 1 and 2 GHG emissions.

During FY 2011, scope 1 and 2 GHG emissions decreased against the baseline at both NETL and RMOTC. Across NETL sites, scope 1 and 2 GHG emissions decreased from 27,103.1 to 25,097.9 (a 7.4% decrease). The majority of NETL's scope 1 and 2 GHG emissions result from purchased electrical power and natural gas consumption. While NETL continues to reduce energy intensity by implementing energy conservation projects, increases in its research portfolio (e.g., completion of laboratory renovations and reopening of labs) may impact

Figure 1



Source: U/S Energy Analysis Workbook

NETL's ability to meet its goal.

RMOTC also saw a significant decrease in its scope 1 and 2 GHG emissions from 7,660.3 to 5,381.2 (a 29.8% decrease). This is largely due to an increased focus on reducing energy consumption and consuming energy from renewable energy sources.

During FY 2011, SPR saw a slight increase in its scope 1 and 2 GHG emissions from 28,212.7 to 28,296.1 (a 0.3% increase) due in large part to an increase in energy consumption as a result of

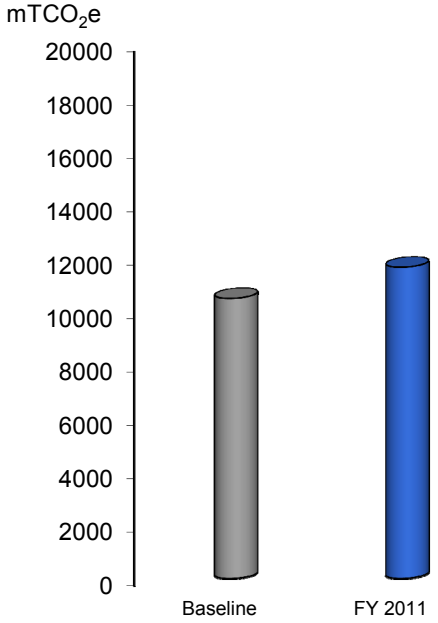
the President-directed crude oil drawdown that occurred at the Big Hill, Bryan Mound, and West Hackberry sites during July and August 2011. However, SPR made continued progress in reducing GHG emissions from site processes (e.g., reduced emergency generator usage, the completion of degasification operations at the Bryan Mound site) and fleet petroleum consumption.

Scope 3 GHG Emissions Increase Slightly Against the FY 2008 Baseline

DOE set a goal of reducing scope 3 GHG emissions by 13% by FY 2020 against the established FY 2008 baseline. Scope 3 GHG emissions are defined as those emissions from sources not owned or directly controlled by a Federal agency but related to agency activities such as vendor supply chains, delivery services, and employee travel and commuting. Per the latest DOE guidance included in the FY 2010 Strategic Sustainability Performance Plan, FE's activities such as air travel, ground travel, commuting, contracted solid waste disposal, contracted wastewater treatment, and transmission and distribution losses associated with purchased electricity all contribute to scope 3 GHG emissions.

Figure 2

FE SCOPE 3 GREENHOUSE GAS EMISSIONS



Source: U/S Energy Analysis Workbook

Scope 3 GHG emissions increased slightly from 10,482.8 $mTCO_2e$ during the FY 2008 baseline to 11,652.0 $mTCO_2e$ during FY 2011 (an 11.2% increase). This increase can be attributed to increases in scope 3 GHG emissions at both SPR and NETL.

At RMOTC, scope 3 GHG emissions decreased from 540.5 $mTCO_2e$ during the FY 2008 baseline to 519.8 $mTCO_2e$ during FY 2011 (a 3.8% decrease). About 55% of staff carpool in personally owned vehicles to the field. Employees will continue to be encouraged to carpool and utilize energy efficient vehicles. In addition, RMOTC will reduce business (air and ground) travel by better utilizing teleconferencing and, where possible, creating telecommuting agreements.

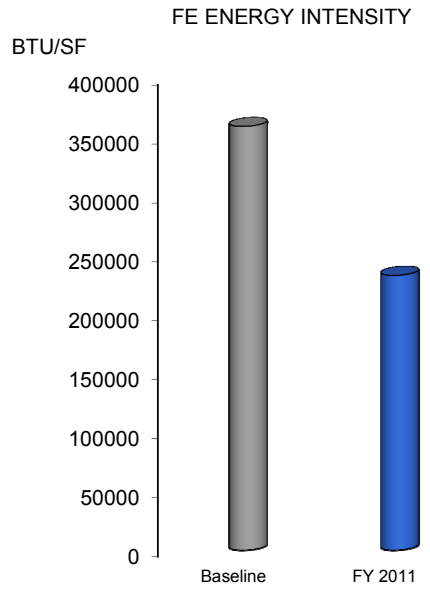
At NETL and SPR, scope 3 GHG emissions increased during FY 2011. NETL's scope 3 GHG emissions increased from 5,278.5 $mTCO_2e$ during FY 2008 to 5,715.2 $mTCO_2e$ in FY 2011 (an 8.3% increase) and SPR's scope 3 GHG emissions increased from 4,663.9 $mTCO_2e$ to 5,417.1 $mTCO_2e$ (a 16.1% increase). To decrease scope 3 GHG emissions, both NETL and SPR will increase the use of video and teleconferencing and internet-based meeting applications as an alternative to in-person presence. In addition, NETL's Green Transportation Pool program promotes employee carpooling in an effort to reduce employee commuting miles.

Energy Intensity Surpasses DOE Target

The Energy Independence and Security Act (EISA) of 2007, consistent with EO 13423 and DOE Order 430.2B, requires a 30% energy intensity reduction for federal facilities by 2015 (relative to 2003). Energy intensity is defined as energy consumption per square foot of building space in BTUs.

During FY 2011, FE achieved an energy intensity

Figure 3



Source: U/S Energy Analysis Workbook
**Please note that chart includes RECs*

reduction of 35.1% including renewable energy credits (RECs), far surpassing the target set by DOE of 18%. This translates into an energy intensity of 232,713 BTUs/square foot (SF) against an FY 2003 baseline of 358,837 BTUs/ SF.

Both NETL and RMOTC reduced their energy intensity during FY 2011. NETL reduced its energy intensity from 223,686 BTUs/SF during FY 2003 to 129,024 BTUs/SF in FY 2011 (a 42.3% reduction) and RMOTC reduced its energy intensity from 1,814,213 BTUs/SF in FY 2003 to 891,990 BTUs/SF in FY 2011 (a 50.8% reduction). While the crude oil drawdown at SPR resulted in an increase from 486,564 BTUs/SF in FY 2003 to 584,902 BTUs/SF in FY 2011, a 20.2% increase in energy intensity over the FY 2003 baseline, the overall DOE target was still met.

Across all FE sites, reducing energy intensity continues to be a priority. For example, NETL implemented a number of projects including the NETL-Pittsburgh site's procurement of all its natural gas needs from a local landfill, completion of the new NETL-Morgantown daycare facility, and implementation of 11 of 13 energy conservation measures (ECMs) developed under the Biomass and Alternative Methane Fuel (BAMF) Energy Savings Performance Contract (ESPC) (e.g., steam biogas conversion, lighting and HVAC control improvements) that will provide an estimated annual energy savings of 23.9 billion BTUs and estimated cost savings of $750,000. SPR continues to conduct exercises of Recovery Pumping Equipment (RPX) to ensure proper layout and assemblage of emergency pumping in the most efficient way possible and exercises to move crude oil in pipelines to nearby oil terminals, and tests induction and LED lighting at sites. Finally, RMOTC is undertaking lighting improvements and appliance maintenance/ replacement across the site.

Renewable Energy Use Slightly Above 5% Requirement

The Energy Policy Act (EPAct) of 2005, consistent with EO 13423 and EO 13514, requires Federal agencies to ensure that no less than 5% of their electric energy comes from renewable sources between FY 2010 — FY 2012 and 7.5% by FY 2013. Renewable energy sources include energy produced by solar, wind, biomass, landfill gas, ocean, geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project. During FY 2011, a total of 4,855.1 megawatt hours/year (MWh/Yr) (5.5% of all energy produced and consumed) came from renewable sources across FE sites. This percentage is slightly higher than the 5% requirement outlined above.

During FY 2011, at RMOTC, a total of 2,291.2 MWh/Yr (19.6% of all energy produced and

Table 1

FE RENEWABLE ENERGY CONSUMPTION

Fiscal Year	Renewable Energy %
2011	5.5%

Source: U/S Energy Analysis Workbook

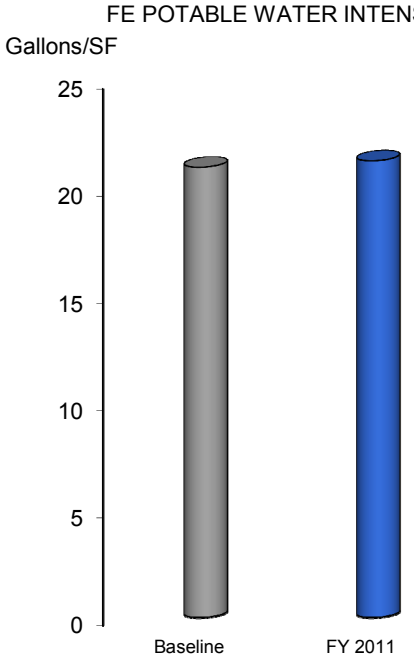
consumed) came from renewable energy sources. This is largely due to two permanent 250 kilowatt (kW) low temperature geothermal units and a 6 kW proven wind turbine. At SPR, a cost savings reinvestment program is in place where money saved from using power for process operations is used to purchase renewable wind credits from the Superior Wind Project, a wind farm located in Iowa. Solar panels that charge batteries to open/close remote valve actuators at the West Hackberry site and navigational lighting at the Bryan Mound site also contribute to SPR's total of 2,364.9 MWh/Yr (a total of 5.1% of energy consumed). Lastly, NETL, which relies extensively on generation sources that use fossil or nuclear fuel, is in the process of evaluating renewable energy production options including on -site generation, dedicated power purchase agreements for renewable energy, and the possibility of using solar power, wind power, and solar hot water heaters. These strategies are designed to increase the site's current renewable energy consumption of 199.0 MWh/Yr (0.7% of its total consumption).

FE Experiences Slight Increase in Potable Water Intensity

EO 13514 requires that Federal agencies reduce potable water consumption intensity by 2% annually through FY 2020 or 26% by the end of FY 2020 relative to the baseline established in FY 2007. Sites measure water intensity in gallons per square foot of building space.

During FY 2011, FE sites experienced a slight increase in potable water intensity to 21.3 gallons/square foot (SF) against the FY 2007 baseline of 21.0 gallons/SF (a 1.4% increase). This increase is in large part due to potable water use for bearing cooling and seal-flush for SPR pumps during July and August 2011's President-directed crude oil drawdown. Additional factors contributing to the increase in potable water intensity include continuous operation of SPR's degassing unit at the Bryan Mound site and other drawdown, fill, and degassing operations and exchanges that all require the use of large pumps. The drawdown and additional factors caused SPR's potable water consumption to spike to 39.4 gallons/SF from 18.4 gallons/SF during the FY 2007 baseline. This represents a 113.9% increase in potable water usage per SF for SPR in FY 2011. RMOTC also experienced an increase from 2.9 gallons/SF to 4.0 gallons/SF (a 36.7% increase) due to increased staffing and use of water during projects.

Figure 4



Source: U/S Energy Analysis Workbook

During FY 2011, NETL already exceeded the FY 2020 goal of 26% by achieving a potable water consumption intensity reduction of 36.6% (a decrease from 23.3 gallons/SF in FY 2007 to 14.8 gallons/SF in FY 2011). NETL achieved this reduction by installing a rainwater harvesting system at the NETL-Morgantown site that captures rainwater for non-potable uses. By using this system, the NETL-Morgantown daycare center will use less than half of the amount of potable water of a comparably sized building. The NETL-Morgantown and Pittsburgh sites are also exploring the possibility of water conservation efforts to supply water to low-flow

bathroom fixtures, incorporating closed-loop cooling systems that support research projects, and supplying landscape irrigation.

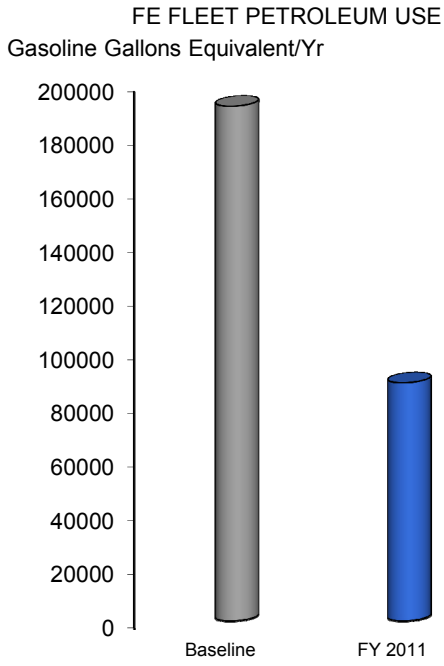
Other site-based potable water reduction initiatives at FE sites include: SPR analysis of storm water against 438 guidance to see how much is retained and used for other purposes and RMOTC development of a water management plan.

Significant Decrease in Fleet Petroleum Use

According to EO 13514, every agency with a fleet of at least 20 motor vehicles will reduce the fleet's total consumption of petroleum products by 2% annually through the end of FY 2020 relative to a FY 2005 baseline. In FY 2011, FE's goal was a 12% reduction (about 168,863 gasoline gallon equivalent/year). FE far exceeded this goal with total petroleum products consumption of 88,766 gasoline gallon equivalent/year during FY 2011, a 53.7% reduction over the FY 2005 baseline.

During FY 2011, both SPR and RMOTC saw sharp declines in their fleet petroleum consumption. SPR reduced its fleet petroleum consumption from the FY 2005 baseline of 126,404 gasoline gallons equivalent/year to 48,600 gasoline gallons equivalent/year during FY 2011. This translates into a 61.6% reduction in total petroleum consumption. In addition to petroleum using vehicles, SPR's fleet also includes eight hybrid sedans, one hybrid SUV, and three hybrid pick-up trucks. These hybrid vehicles help FE to support its fuel reduction goal. In addition, SPR reduced shuttle bus runs that bring employees to and from the worksite from the parking lots. To further reduce petroleum consumption, the Bayou Choctaw site now fuels its shuttle bus on-site rather than driving to an off-site fueling station. Moving forward, SPR will also utilize hybrid vehicle plug-ins when available and will purchase industrial grade bicycles for on-site use.

Figure 5



Source: U/S Energy Analysis Workbook

At RMOTC, fleet petroleum consumption was reduced from 43,884 gasoline gallons equivalent/year during the FY 2005 baseline to 16,560 gasoline gallons equivalent/year during FY 2011. Moving forward, RMOTC will continue to evaluate the current fleet make-up for reduction in the number and size of vehicles and continue to assess the practicality of using hybrids and alternate fuel vehicles (AFVs) for RMOTC's operational needs, particularly given the need for warranties covering off-road use.

At NETL, total petroleum consumption increased slightly from 21,602 gasoline gallons equivalent/year during the FY 2005 baseline to 23,206 gasoline gallons equivalent/year during FY 2011 (a 7.4% increase). While NETL was previously on track to meet its target, the purchase of 17 petroleum-fueled hybrid vehicles that are classified as petroleum consumers rather than AFVs has impacted NETL's Petroleum Consumption Reduction Plan. Even as NETL increased the use of video and teleconferencing options, built two additional video centers, and created an intra-site shuttle service between Morgantown and Pittsburgh that is estimated to save 81,000 miles annually, the site is still at risk

of missing its FY 2020 goal due to DOE's Hybrid Replacement Initiative.

FE Sites Strive for High-Performance Sustainable Buildings (HPSB) (Green Buildings) Goal

EO 13514 requires that Federal agencies implement high performance sustainable Federal building design and operation by ensuring that at least 15% of the agency's existing buildings (above 5,000 gross square feet) and building leases (above 5,000 gross square feet) meet the *Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings* by FY 2015 and that the agency makes annual progress towards 100% conformance with the *Guiding Principles* for its building inventory. During FY 2011, FE continued to pursue compliance with the *Guiding Principles* and Leadership in Energy and Environmental Design (LEED) certification.

During FY 2011, Building 39 at NETL-Morgantown was the only building site to achieve LEED certification and meet the *Guiding Principles* of the 78 buildings across the three FE sites (1.3% of all FE buildings and trailers). However, given the square footage of this building (106,522 gross square feet), this is the equivalent of 6.9% of the total square footage across buildings located at the three FE sites.

Table 2

FE HIGH-PERFORMANCE SUSTAINABLE BUILDINGS

Fiscal Year 2011		
Total Number of Buildings and Trailers >5,000 SF	1 of 78	1.3%
Total SF of Buildings and Trailers >5,000 SF	106,522 SF of 1,539,293 SF	6.9%

Source: U/S Energy Analysis Workbook

NETL continues to strive for this goal with a total of six additional buildings becoming either LEED -certified or HPSB according to the *Guiding Principles* by the end of FY 2014.

At SPR, an eligibility assessment was conducted to define, categorize, and rank buildings for upgrades based on the *Guiding Principles,* which was followed by a building assessment to identify the necessary projects required to bring these buildings into compliance with the *Guiding Principles.* SPR is currently developing a sustainability budget module through FY 2018 which will include the projected budget for any suggested building renovation. While SPR is not currently planning to construct new buildings, alterations to several buildings are planned through the Major Maintenance Program. *Guiding Principles* compliance is also planned where applicable. In addition, RMOTC does not have any plans for new building construction at the site. However, plans are in place to make continuous improvement on 50% of the buildings occupying over 5,000 square feet at the site.

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

During FY 2011, FE made progress in its ESS&H performance. With the beginning of FY 2012, FE will continue to focus on reducing environmental impacts and encouraging sustainability, the need for increased security and emergency preparedness, and a continued focus on reducing injuries and illness. In addition, FE continues to confront long-term challenges such as incorporating sustainability into FE practices, planning for employee retirements, providing adequate training for new staff, and integrating proactive management processes to support high performance. This section provides an overview of FE's ESS&H challenges and the initiatives to be addressed during FY 2012, followed by a summary of site-specific initiatives.

Key Challenges and Initiatives

Maintaining Strong Sustainability Programs and Eliminating Environmental Legacies

During FY 2012, FE will continue to focus on incorporating sustainability, namely by increasing efficiency and alternative energy use, into FE operational practices. Simultaneously, FE will focus on reducing new environmental issues which may impact future generations. In addition, with the continued implementation of EO 13514, FE sites will develop processes to support immediate needs and demonstrate the programmatic flexibility, staff expertise, and innovation in ESS&H that FE sites are proud of.

FE will focus on the following sustainability initiatives aligned with DOE key objectives: (1) fostering a culture of energy efficiency and sustainability; (2) improving data quality to inform operations and decision making; (3) optimizing allocation of resources to achieve EO goals while safeguarding the mission; (4) applying the best sustainability practices; and (5) adopting emerging, promising technologies. FE will also continue to make progress against the seven metrics outlined in the DOE's OMB Scorecard on Sustainability/Energy.

Protecting Workers and Meeting DOE Security and Emergency Response Needs

To serve the Nation by providing secure, reliable energy and research, FE must continue to strengthen its security efforts and emergency response programs. To protect its employees and facilities, FE will continue to: (1) offer basic and comprehensive security and emergency management exercises and training to validate mission readiness; (2) ensure current programs comply with the latest directives and standards; (3) modernize security infrastructure; and (4) integrate the activities of specialists dedicated to improving security and emergency management into daily work activities.

FE sites work in partnership with their communities. To that end, the sites will continue to strengthen relationships with local municipalities and institutions as well as state and Federal law enforcement. This collaboration helps to ensure seamless coordination on emergency response and security issues.

Striving for "Zero"

FE continues to strive for zero accidents, work-related injuries and illnesses, regulatory enforcement actions, and reportable environmental releases.

During FY 2012, FE will: (1) focus on its "Heroes for Zero" campaign that is based on zero tolerance for accidents; (2) enhance employee safety training and exercises; (3) promote employee awareness and understanding of safety standards and practices, particularly around helping employees recognize potential health and safety hazards on-the-job; (4) continue to provide specialists to observe particularly high-risk on-site activities; and (5) foster a work

environment that encourages knowledge-sharing of best practices and open communication with employees about their ESS&H concerns.

FE will also reinforce existing safety training and awareness by addressing safety best practices in all-hands meetings and providing continued education on pertinent safety issues.

Effectively Implementing Integrated Safety Management

FE continues to leverage integrated safety management (ISM) as a systematic method for integrating ESS&H into all steps of the work planning and implementation processes. During FY 2012, FE will continue to prioritize its ISM processes during work planning and operations. For example, SPR will implement a Human Performance Improvement (HPI) program for supervisors at its sites. FE-HQ will continue site assistance visits to analyze each site's ISM program, share best practices, and offer guidance and input to capitalize on ISM opportunities. The continued inclusion of management in supporting ESS&H priorities and forums that support the importance of communicating lessons learned are designed to create and sustain a safer work environment.

Building a Strong ESS&H Culture

Building a strong culture of ESS&H is an important component of creating a strong overall ESS&H program. By integrating ESS&H activities that align with the mission and values of an organization, FE sites can continue to emphasize the importance of ESS&H. During FY 2012, FE sites will continue to participate in community exercises and volunteering, build on partnerships with other organizations, and emphasize the continued importance of training and development to provide employees with a comprehensive understanding of operations, work culture, and performance expectations. For example, during FY 2012, FE sites will continue waste minimization and disposal and recycling programs to demonstrate support of environmental conservation.

Promoting an Organization of Continual Learning

The foundation of FE's ESS&H efforts is based on the notion that a well-informed workforce with a culture of continuous learning is best equipped to achieve its goals. In FY 2012, FE will continue fostering integration among the teams located at different sites. As its workforce ages and employees near retirement, FE is focused on succession planning as well as employee onboarding, mentoring, training and other learning programs that educate new personnel on ESS&H principles as they begin their careers at FE. FE will also build upon previous efforts to promote health and wellness for employees and their families and continue to enhance its emergency management, security drills, and exercises to teach employees how to use updated equipment and systems.

The QA Process

During FY 2012, FE will focus on aligning its programs and activities with FE's overall strategies, mission, and goals. Quality assurance efforts help verify and track FE's improvements and emerging challenges. For example, FE is starting to use the Six Sigma approach, a methodology that focuses on improving processes and reducing variations in those processes. FE is providing initial training to employees on Six Sigma.

Obtaining External Certification of ESS&H Programs

During FY 2012, FE will continue to maintain external certifications from OSHA, EPA, and ISO. This ensures that employees and the public have the highest confidence level in the reliability of FE's systems and processes. FE will retain external certifications and employ external, nationally recognized experts to carry out assessments. In addition, FE will continue to voluntarily participate in third-party programs

and apply for awards that demonstrate the strength of its programs.

2012 Site-Specific Initiatives

National Energy Technology Laboratory (NETL)

- Continue to maintain ISO 14001 and OHSAS 18001 certifications.
- Clean up non-hazardous contaminated soil at the NETL-Albany site.
- Work with the Site Operations Division (SOD) to revise the ESS&H requirements for off-site contractors working at NETL to improve the evaluation and oversight processes for construction projects. Outline specific requirements for ESS&H Plans and facilities.
- Implement Activity Hazard Analysis (AHA) to allow ESS&H staff to better identify and mitigate construction hazards.
- Continue the integration of ESS&H mitigation and solutions into site construction activities with a particular focus on waste minimization and pollution prevention.
- Evaluate all opportunities to reduce, recycle, or reuse construction materials and wastes.
- Continue to clean up chemicals from all laboratories.
- Hold emergency management exercises at all three sites.
- Continue integration of security, fire, and gas alarm systems into common facility management system at NETL-Albany.
- Investigate use of DOE corrective action management program to replace existing tracking system that is outdated and difficult to maintain.

Rocky Mountain Oilfield Testing Center (RMOTC)

- Conduct Phase I and II Environmental Site Assessments for NPR-3.
- Conduct a cultural resources survey to determine historical significance of facilities.
- Upgrade personal protective equipment (PPE) and fall protection equipment.
- Conduct evaluations for confined space program, electrical program, energy isolation, and vehicle safety.
- Complete a large-scale clean up effort which will include naturally occurring radioactive material (NORM), asbestos, and scrap steel.
- Maintain composting facilities to enable recycling of oil-contaminated soil.
- Submit applications for DOE security badges for support services contractor personnel.

Strategic Petroleum Reserve (SPR)

- Maintain Voluntary Protection Program (VPP) certifications and apply to the Occupational Safety and Health Administration (OSHA) for VPP status for the Bayou Choctaw security force.
- Earn Occupational Health and Safety Advisory Services (OHSAS) 18000 certification.
- Complete Fit for Duty program observations, evaluations, and begin ongoing testing.
- Provide additional training on the “Safe Work Permit” program for employees.
- Implement the Mass Notification System for emergency recall and expand its potential as an incident awareness broadcasting tool for all of SPR.

- Implement a Human Performance Improvement (HPI) program for supervisors.
- Enhance approach to documenting daily activity reports.
- Enhance quality of the self-assessment process for identification and handling of continuous improvement.
- Maintain the SPR Environmental Management System (EMS) as an ISO 14001 certified EMS.
- Receive ISO 9001 recertification.

Appendix A. SUMMARY OF FY 2011 PERFORMANCE MEASURES: PERCENTAGE CHANGE FROM FY 2010 PERFORMANCE

Metric	FE Total	FE HQ*	SPR	NETL	RMOTC	DOE Total
Total Recordable Cases	17 -(23%)	1 (100%)	8 -(33%)	8 -(20%)	1 (100%)	1,541 (2%)
Total Recordable Case Rate	0.6 -(33%)	Not Available	0.8 -(38%)	0.5 -(17%)	1.5 (150%)	1.1 (NC)
# Days Away, Restricted or on Job Transfer Cases	12 (9%)	1 (100%)	5 -(17%)	6 (20%)	1 (100%)	630 -(8%)
Days Away, Restricted or on Job Transfer Case Rate	0.4 (NC)	Not Available	0.5 -(17%)	0.4 (33%)	1.5 (150%)	0.5 (NC)
# Days Away, Restricted or on Job Transfer	642 -(4%)	3 (300%)	323 -(33%)	283 (47%)	36 (3600%)	31,570 (2%)
Days Away, Restricted or on Job Transfer Rate	24.1 -(7%)	Not Available	32.5 -(36%)	17.6 (42%)	54.5 (5450%)	23 (NC)
Occupational Safety and Health Cost Index	26.86 -(1%)	Not Available	62.99 -(2%)	5.12 -(7%)	12.41 (1241%)	12.24 (1%)
Estimated Injury & Illness Costs	$1,433,400 (3%)	Not Available	$1,252,400 (2%)	$164,600 -(4%)	$16,400 (1640000%)	$31,050,800 -(5%)
# Operational Occurrences	14 (40%)	Not Available	1 -(50%)	8* (100%)	5 (25%)	1265 (NC)
# Environmental Releases	6 -(14%)	Not Available	0 -(100%)	3* (NC)	3 (NC)	57 (21%)
# Regulatory Violations	1 (NC)	Not Available	0 (NC)	0 (NC)	1 (NC)	43 (19%)
Lbs. Hazardous Waste Generated	10,830 -(16%)	Not Available	230 -(8%)	10,509 (9%)	91 -(97%)	Not Available
Lbs. Sanitary Waste Generated	1,166,094 -(25%)	Not Available	187,728 -(72%)	713,035 (1%)	265,331 (58%)	Not Available
Hours Worked	5,337,306 (3%)	Not Available	1,988,504 (5%)	3,216,626 (4%)	132,176 -(26%)	274,082,087 (2%)
Near Misses	2 (100%)	Not Available	0 (NC)	2 (100%)	0 (NC)	129 (4%)

* = The one accident at FE HQ is not included in the FE Total column

** = For reporting purposes, numbers include three incidents on property shared with another agency for which FE bore no responsibility

NC = No Change from FY 2010

Data included in this table was collected on May 1, 2012

Office of Environment, Security, Safety and Health

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U.S. DEPARTMENT OF ENERGY

Office of Environment, Security, Safety and Health

FE FY 2011 Site Awards

- EPA Perfect Bacterial Compliance Award – RMOTC
- Energy Star Award – SPR
- Excellence in ESS&H Award – RMOTC
- Excellence in ESS&H Award – SPR
- Federal Laboratory Consortium (FLC) for Technology Transfer Awards – NETL
- National Safety Council's Occupational Excellence Achievement Award – SPR New Orleans, Bayou Choctaw, and Big Hill sites
- National Safety Council (NSC) Award – SPR
- Award of Honor from the NSC South LA Chapter – New Orleans and Bayou Choctaw sites
- R & D Magazine's *R & D 100 Awards* – NETL
- Rocky Mountain Power's Recognition for supporting the Blue Sky Renewable Energy Program – RMOTC
- Secretary of Energy Achievement Awards – NETL