Implementing the President's Management Agenda

DELIVERING RESULTS

Wind turbines at Tehachapi Pass, California.

Delivering Results

Over the past four years, the Department of Energy has successfully implemented mechanisms to help programs steadily improve their performance. Examples include systems to ensure that projects meet cost, schedule, and performance targets; five-year planning and budgeting to more strategically manage mid- to long-term program priorities; and contracting reforms to more systemically develop acquisition strategies and to more effectively manage contracts. In addition, the Department now uses performance and financial data routinely to make better informed business decisions and influence the annual budget process.

As a result of these and other management improvement initiatives, many departmental programs are demonstrating steady improvement in performance. Examples include the following:

Transuranic Waste Program

In our effort to eliminate the dangers from the legacy of cold war weapons production, the Department established the National Transuranic Waste Program. This program is designed to reduce the risk associated with radioactive waste defined as waste containing more than 100 nanocuries of alpha-emitting transuranic isotopes per gram of waste with half-lives greater than 20 years. Through this program, transuranic waste currently stored at departmental sites is being shipped to the Waste Isolation Pilot Plant (WIPP) for disposal. WIPP is a repository located 2,150 feet below the surface in an ancient bedded salt formation located 26 miles east of Carlsbad, New Mexico.

When the disposal of waste at WIPP began in 1999, the Department made 33 shipments with 275 cubic meters of waste. As a result of increased efficiency and the application of project management principles, the program steadily increased the number of shipments and the amount of waste disposed. By 2002, 864 shipments were made carrying 5,134 cubic meters of waste. In 2004, 964 shipments were made with 8,810 cubic meters of waste. To date, more than 3,600 shipments have been made with over 29,000 cubic meters of waste disposed.

The efficient and effective operation of WIPP is integral to departmental efforts to expeditiously clean-up and close sites. The Department's Rocky Flats site completed its last transuranic shipment to WIPP in April 2005, which was a significant milestone toward meeting their goal of closure in FY 2006. The Lawrence Livermore National Laboratory also made their last legacy transuranic waste shipment to WIPP in January 2005 except for their large box waste. Eight more sites with smaller quantities of transuranic waste have completed shipping their wastes to WIPP.

Earlier this year, the Department submitted a revised permit modification request to the New Mexico Environment Department to dispose of remote-handled transuranic waste. If granted, this will result in greater efficiency and significant cost savings.

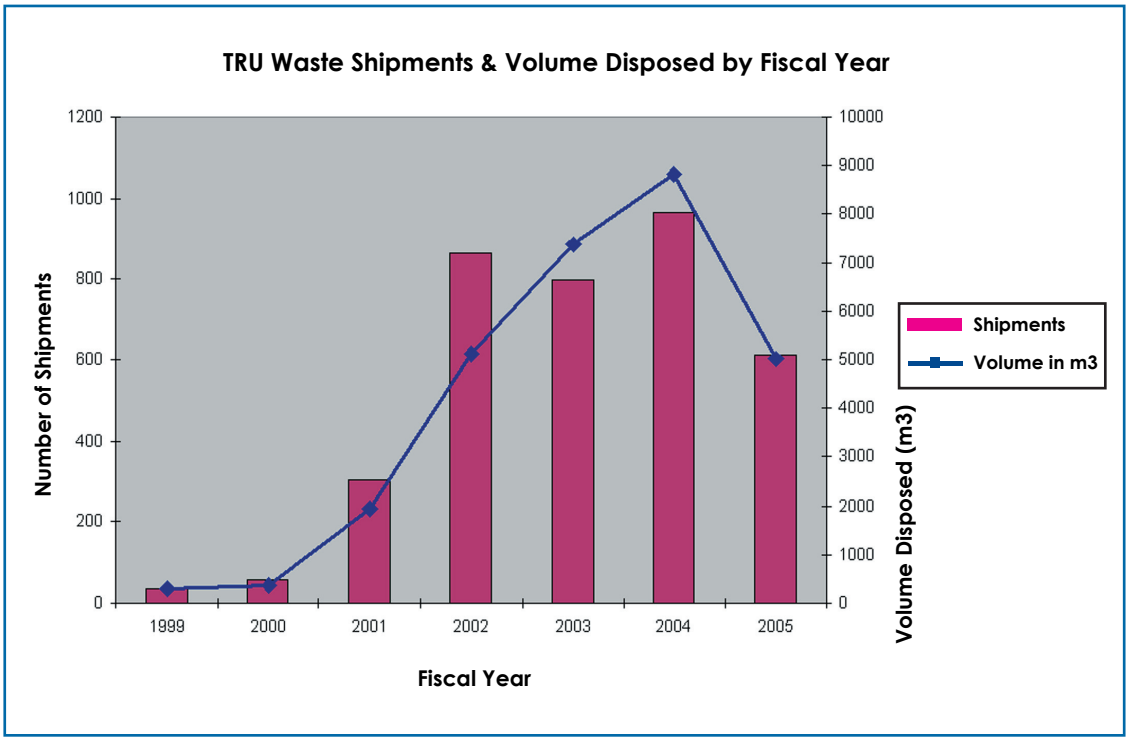
Rocky Flats Closure Project

The Department is proud of its accomplishments in cleaning up the Rocky Flats Closure site. With nearly 85 percent of the work completed, the project remains under cost and ahead of schedule. Based on information provided to Congress in 1995, the Department projected to

close Rocky Flats in 2030 at a cost of $36 billion. Instead, Rocky Flats is closing in 2006 at a cost of $7.8 billion. Most environmental and health risks to the surrounding communities have been eliminated and the resulting cleanup will exceed all State and Federal requirements.

By the end of FY 2005, the project will be 98 percent complete.

This success exceeds original expectations. A decade ago, the Department planned to remove contaminated buildings by 2020, but expected to continue storing waste at the site. At best, future use of the site would have been limited to open space or light industrial use. Now, the site is completing cleanup and will be used as a wildlife refuge.



The Rocky Flats success story is an excellent example of good project management and contracting improvements. The Department established clear goals for the site and then worked with State regulators to develop strategies for meeting the goals. Contract incentives were used to spur the contractor to find the most efficient and effective means to accomplish the Department's goals for the site. Finally, support was obtained from the surrounding communities, Congress, and labor unions representing Rocky Flat's employees. The Rocky Flats Project serves as model for the Department's remaining clean-up projects.

Idaho Cleanup Project

Test Area North at the Idaho National Laboratory is the site of several projects that were instrumental to the Nation's early nuclear energy program.

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Light-initiated high explosive test to simulate hostile environment on W78 warhead test unit.

These include the development of nuclear-powered aircraft engines, analysis of spent nuclear fuel and core debris from the Three Mile Island reactor accident and design of test reactors.

The Idaho Cleanup Project is aggressively working to clean up Test Area North. To date, approximately 203,000 square feet of buildings and structures have been removed and work continues to demolish the rest of the contaminated facilities.

The 97-acre Subsurface Disposal Area, also located at the Idaho site, was used for decades to dispose of low-level and transuranic waste. The Department found that removing waste from the Subsurface Disposal Area is difficult due to the nature of the waste. To overcome this challenge, an innovative process, known as the Glovebox Excavator Method, was developed and successfully tested.

After years of careful planning, the Glovebox Excavator Method Project was successfully completed nearly eight months ahead of the required milestone date. Buried waste retrieval began on December 12, 2003. After 10 weeks of operations, the project was completed on February 21, 2004. In total, 454 drums containing 78 cubic yards of waste were retrieved.

Innovations, which will be useful at other sites, included the use of a full-scale mock-up project and waste probing technology that allowed workers to learn as much as possible about the buried waste. Identifying these issues earlier allowed the engineers to make appropriate construction design changes to ensure efficient operation of the facility. These adjustments enhanced productivity and were a key contributor to completing the project ahead of schedule. The changes also significantly enhanced work flow while protecting worker safety.

Oak Ridge Tank Remediation Project

Environmental management is the largest program at the Department's Oak Ridge, Tennessee site, with aggressive projects underway to clean up the legacies from more than 50 years of energy research and nuclear weapons production. As the Department becomes more experienced in project management and cleaning up waste, we have devised more sophisticated techniques that are resulting in

great efficiency. The Department's performance in cleaning the last two inactive liquid low-level radioactive waste storage tanks is a case in point.

In March 2005, these tanks were filled with grout, completing a tank remediation project that began in early 2002. The two tanks contained a total of 3,300 gallons of low-level radioactive residue sludge. Removal of the sludge was originally scheduled for completion by June 2006 at an estimated cost over $10 million. Instead it was completed more than one year ahead of schedule and at about half the expected cost. This success resulted from modifying the existing management contract to an incentivized closure contract. These incentives motivated the contractor to identify the most efficient, effective, and safe means to complete the work.

> "My commitment to ensuring the Department continues its outstanding record on implementing the President's Management Agenda is steadfast – not because we want to receive good scores, but because we must be well managed to achieve the President's energy priorities. Using the President's Management Agenda as our roadmap, we will transform the Department into an organization that makes good on its promises and delivers results for the Nation."
>
> Deputy Secretary Clay Sell

Joint Genome Institute

Microbial genomics holds great promise for addressing the Department's most challenging mission needs. Beginning with microbial genomic DNA sequences determined by the Joint Genome Institute's Production Genomics Facility, the Department is working toward developing microbes that may someday generate hydrogen, make ethanol from biomass, sequester carbon dioxide, or clean up chemical or radioactive waste. Determining the DNA sequences of these microbes is an important first step toward harnessing the potential of these tiny organisms for solving tough energy and environmental challenges.

As one of the leading DNA sequencing centers in the world, the Joint Genome Institute has sequenced scores of genomes, including more than 200 microbial genomes. These investigations are providing valuable information on the cellular machinery of microbes and their potential for such uses as cleaning up contaminated soil or water, capturing carbon from the atmosphere, and producing potentially important energy sources as hydrogen and ethanol.

Since its creation in 1999, the Institute has steadily increased its sequencing rate from 20 million base pairs per year to a capacity now exceeding 2.5 billion bases each month (more than 30 billion per year). Accelerating the pace of the sequencing allows for more research and brings the Department closer to resolving some of our most daunting challenges.

Material Protection Control and Accounting Program

This program has made dramatic progress in securing sites with weapons usable material and nuclear warheads. Security improvements at the 39 Russian Navy warhead sites containing hundreds of warheads are over 85 percent complete and 95

Argonne National Laboratory scientist installs tiles in prototype detector section.

percent will be complete by the end of FY 2005. Within the 51 sites containing weapons-useable nuclear materials, a total of 114 buildings have been upgraded. Security enhancements at these sites are over 75 percent complete and more than 80 percent will be complete by the end of FY 2005. Nearly half (46 percent) of all the nuclear materials within these sites have been secured.

The program has fine-tuned its management practices over the last four years. Program Management Guidelines, which describe the processes by which upgrades are performed based on the categorization of nuclear materials to be protected, have been developed. A streamlined contracting process allows for funds to be committed quickly to procure necessary equipment and arrange for installation. In addition, a password-protected web-site provides tools for project managers to track milestones, allocate resources and predict and if possible, avert schedule slippages. These innovations have contributed significantly to the program's steadily improved performance.

Impact on the Work Place

Department of Energy employees are proud of the management and program improvements that have been realized over the last four years. These improvements have produced tremendous benefits for our Nation and its taxpayers, but they have also established an improved, more professional working environment for employees.

Improved Project Management

One of the most significant management improvements the Department has made is to establish a structured, disciplined process to manage its multi-

billion dollar project portfolio. This process ensures that projects support the Department's mission; fulfill a clearly articulated need; are properly planned; have sound costs-estimates, and are monitored for adherence to cost, schedule, and performance targets. It also ensures the involvement of the Department's senior officials in decision-making on major projects from start to finish.

The goal of improved project management is to ensure the Department meets its commitments to complete projects on schedule and cost and to ensure that taxpayers' dollars are spent wisely. Previously, in an effort to streamline processes, Federal oversight of project management was minimized, and the responsibility was deferred to contractors. Cost overruns on some highly visible projects caused the Department to reassess its processes for identifying, designing, managing, and constructing facilities and making critical improvements. To address the major challenges that remain, the Department is undertaking the specific actions described below to help achieve its goal of meeting cost, schedule, and performance targets for major projects.

For example, executives, program managers, and project directors are all now being held accountable for project performance. Beginning in FY 2004, their performance plans were amended to include explicit standards for meeting cost, schedule, and performance targets for projects. To equip them with tools for success, the Department established a rigorous professional development program to provide project directors with the experience, training, and knowledge needed to competently manage complex projects. Beginning in May 2006, all major departmental projects must be led by a certified project director. To date, the Department has certified 70 project directors and expects to certify about 125 more over the next year.

> "The Federal Government is working to ensure taxpayer dollars buy more and go farther every year. I personally believe that we have done more in the past few years to change the way the Government works than during any comparable period in recent history."
>
> Clay Johnson
> Deputy Director for Management
> Office of Management and Budget

To ensure the continuing availability of experienced project managers, the Department is institutionalizing the certification program to establish a talent pool of prospective project managers. By providing such substantive opportunities for personal growth and development, the Department has begun to raise standards for professionalism and foster an improved business environment.

The Department has also instituted programs to recognize project management teams that have performed in an exemplary manner. Since 2000, the Secretary has recognized 18 teams. Examples of recent award winners include the Stanford Positron Electron Asymmetric Ring 3 Upgrade Project at the Stanford Linear Accelerator Center for the successful completion of the upgrade three months ahead of schedule and within the $58 million budget and the Comparative and Functional Genomics Project Team at Oak Ridge National Laboratory for completing their project on time with a cost savings of $380,000.

The Department is also raising the standards used by our contractors to manage projects by enforcing the requirement

Delivering Results

B61-11 strategic bomb trainer.

that they use earned value management, which is a methodology that provides visibility into cost, schedule, and technical progress to assess project performance. The Department recently implemented a certification program for contractors' EVM systems to verify compliance with industry standards. To date, the Department has conducted three reviews. Five additional reviews will be completed in FY 2005, and 13 are planned in FY 2006. This effort, which is part of the President's Management Agenda Improved Financial Performance initiative, is compelling contractors to examine their business processes and assume greater accountability for delivering results.

Implementing project management improvements has been challenging, but the effort has proven worthwhile as demonstrated by improved performance. In 2002, only 49 percent of the Department's major projects were operating on cost and schedule. By comparison, in June 2005, 90 percent met cost and schedule targets. While significant challenges remain and while some projects are not performing as well as expected, these statistics reflect an increased commitment on the part of the Department's leadership, employees, and contractors to achieve high standards. They also demonstrate a heightened sense of professionalism and dedication to excellence at the Department of Energy.

Over the next several years, the Department will continue implementing reforms to improve project performance, including strategies to increase the reliability of the data by which performance is measured. The Department will also mount a vigorous effort to improve our contract management function, which has been on the Government Accountability Office's list of high-risk Government programs since 1990.

Using a series of strategies that target weaknesses in pre-contract award activities and oversight of contract administration, especially for major projects, the Department expects to improve contract performance. Similar to the network of reforms instituted for project management, the Department expects that this initiative will empower employees to manage our contracts in a more business-like and professional manner.

Human Capital Reforms

Through the President's Management Agenda's Human Capital initiative, the Department has made tremendous strides toward building a more highly-skilled work force in which employees have greater responsibility and are held to higher standards.

Over the last two years, the Department has reorganized its three major organizations: the National Nuclear Security Administration, the Office of Environmental Management, and the Office of Science. As a result of these restructurings, the Department has reduced the number of senior executive service members and managers. These cutbacks have given employees greater opportunities to excel by allowing them to take on new challenges that may have previously been reserved for more senior staff.

To ensure that employees have the skills to assume greater responsibility, the Department instituted rigorous certification programs to close skill gaps in two mission critical areas: project management and contract management. The Department has also instituted rigorous programs to identify and develop our future leaders.

For employees whose skill-sets may no longer be needed, the Department is offering separation or retirement incentives. Nearly 60 percent of the Department's organizations are currently using such incentives to consolidate positions and phase out outdated skill-sets, thereby providing the opportunity to recruit employees with skills critical to the Department's mission.

Along with more responsibility has come greater accountability. As a result, the Department's performance management and award systems have been strengthened by directly linking performance ratings with mission goals and holding employees accountable for results. To distinguish between various levels of performance, the Department is eliminating its pass-fail performance systems beginning in FY 2006.

These human capital initiatives have spurred a renewed sense of pride and purpose in the Department's work force. They have created an environment where employees have the opportunity to engage in more challenging work for personal growth and development and for greater achievement. In short, they have made the Department a better place to work.

Increased Emphasis on Safety

People are the Department's most valuable resource. To ensure that the Department's employees and contractors, many of whom work in hazardous conditions where they are at risk for exposure to radiation and toxic chemicals, are safe in their workplace, the Department has recently heightened its attention to health and safety. Examples of initiatives include:
The Department is instituting a comprehensive professional development program to enhance the skills and knowledge of managers and technical staff on health and safety requirements.

The Department is strengthening the requirements for the safety reviews that are required prior to the start-up or restart of nuclear facilities at departmental sites.

In addition, the Department is raising performance expectations with regard to health and safety. A recent example involves the safe use of

lasers at Department facilities. Following a laser accident, a report was issued that contained performance expectations to be implemented Department-wide making improvements in laser safety programs. In addition to the Department of Energy, the performance expectations were adopted by the National Aeronautics and Space Administration as well as the Japanese Atomic Energy Research Institute.

In our ongoing commitment to keeping the environment safe for all, the Department has been aggressively improving our management systems for ensuring that the environmental consequences of our operations are identified early in the project planning process, and that appropriate preventive and mitigation measures are implemented in a timely manner.

The Department is in the process of establishing new complex-wide goals for pollution prevention at its sites to meet mission goals while reducing occupational exposure hazards associated with the use of toxic substances and to reduce the financial burden on taxpayers from the generation and disposal of wastes.

The health and safety of our employees has received increased attention. The Department expanded its Former Worker Medical Screening Program to cover all former Federal and contractor employees from all Department sites. This medical screening service contributes to improved health of former employees by promoting early detection and intervention for health conditions that could be related to their work at a Department site, and helps to determine whether existing safety policies are effectively protecting our work force. All interested former employees are eligible to receive a screening examination at a clinic located close to their home.

Another important part of our effort to promote a safer and better educated work force comes from the Office of Price-Anderson Enforcement. We carry out the statutory mandate to apply sanctions to Department contractors for unsafe conditions that violate nuclear safety and worker safety rules designed to protect workers and the public. Our accountability system tracks the actions of the entire departmental complex, raising money through fining violators when necessary.

Increased attention to safety and health benefits every part of the Department. Our responsibility is to make sure our employees and the public are safe and secure, and that every year the Department becomes a more desirable place to work, a good neighbor, and a responsible steward of the taxpayers' funds.