



PHOTO COURTESY OF EXXON-MOBIL

ONE MAJOR OIL COMPANY HAS MORE THAN 7,300 EMPLOYEES WHO BENEFIT FROM HIGH WORKPLACE SAFETY AND HEALTH STANDARDS AT 17 OF THE COMPANY'S SITES IN OSHA'S VOLUNTARY PROTECTION PROGRAMS.

## **Outcome Goal 3.1** **Reduce Workplace Injuries, Illnesses and Fatalities**

### **Overview**

The Department's Occupational Safety and Health Administration (OSHA) and the Mine Safety and Health Administration (MSHA) ensure the safety and health of American workers through strong, fair, and effective enforcement. The Department seeks to go beyond enforcement to cooperate with businesses and labor to protect workers. The level of safety and health compliance assistance activity and the number of workplace safety and health partnerships are greater than ever. OSHA and MSHA continue to enhance their compliance assistance efforts, ranging from OSHA's onsite consultation to MSHA's education, training, and technical support for mine owners and miners.

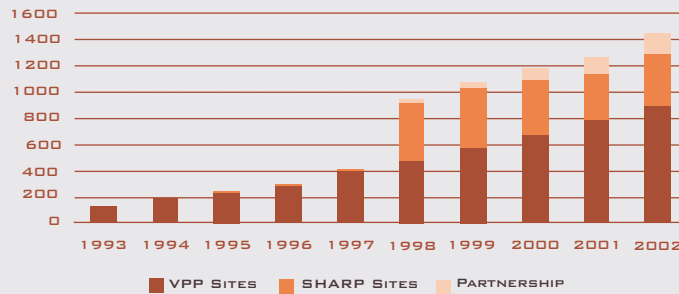
### **Serving the Public**

DOL is expanding its efforts to reduce workplace injuries, illnesses, and fatalities by assisting employers and employees to understand and comply with its regulations through safety and health partnerships. The OSHA Voluntary Protection Programs (VPP) recognize excellence in safety and health program management and encourage improvement. By the end of FY 2002, a total of 884 worksites employing 553,458 workers nationwide participated in the VPP, and the rate of workdays lost as a result of injuries and illnesses at these sites fell 50 percent below industry averages. The OSHA Safety and Health Achievement Recognition Program (SHARP) offers incentives, recognition, and support to smaller, high hazard employers to develop and improve their safety and health programs, and nearly 400 sites had enrolled in SHARP by the end of FY 2002. In the OSHA Strategic Partnership relationship, OSHA enters into an extended, cooperative relationship with employers, employees, and employee representatives. OSHA now has 168 strategic partnerships involving more than 3,700 employers and covering nearly 195,000 workers.

DOL also established partnerships to respond to crises. During FY 2002, when the anthrax threat emerged, OSHA assisted the Postal Service; worked with the Senate in efforts to decontaminate the Hart Senate Office Building; participated on an anthrax task force with the National Institute of Occupational Safety and Health and the Centers for Disease Control; and

maintained ongoing contact with the Federal Bureau of Investigation, the Environmental Protection Agency, and the Food and Drug Administration. However, the Department's partnering relationships in crises situations were never more in the public eye than on July 24, 2002, when nine underground coal miners became trapped at the Quecreek #1 Mine in Somerset County, Pennsylvania. After a sudden in-rush of millions of gallons of water trapped the miners, the Department initiated a coordinated response that included local, State and Federal agencies—including the State of Pennsylvania, the mine operator, mine rescue teams, local law enforcement officials, drilling companies, the U.S. Navy Seals, the Salvation Army, the Red Cross, MSHA personnel, and many others. From start to finish, all worked together tirelessly to rescue the nine men quickly and safely. The ultimate successful outcome proved the value of DOL's investments in mine safety techniques, miner training, and strong partnerships among government agencies and private industry.

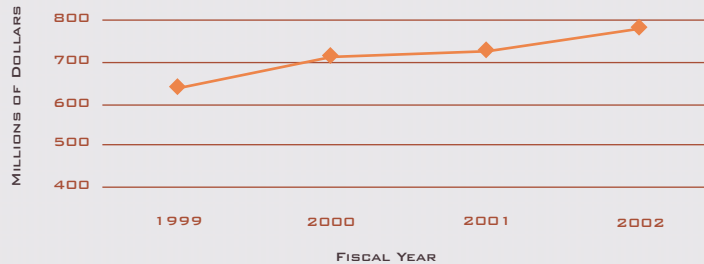
GROWTH OF OSHA SAFETY AND HEALTH PARTNERSHIPS



### Program Costs

The FY 2002 program costs of \$781 million for Outcome Goal 3.1 support OSHA and MSHA occupational safety and health programs through compliance assistance and direct enforcement or through grants to State programs. Enhanced efforts of the Department included compliance assistance and enforcement initiatives to identify, target and strengthen focused programs on high hazard industries needing priority attention, such as the construction and metal and nonmetal mining industries.

NET COSTS (\$M)



### DOL Challenges for the Future

The Department ensures workplace safety and health for a diverse and constantly changing workforce—some of whom are new to the workforce, such as recent immigrants—who work in our mines, operate our factories, and build our houses. Trends in the demographic characteristics of the workforce and the pace of technology innovations create special safety and health issues that challenge the Department to focus its resources on the hazards most likely to cause worker injury, illness, or death. At the same time, the Department seeks to continually upgrade the expertise of DOL's safety and health professionals to prepare them to effectively assist the Nation's employers and workers to manage the risks of the changing workplace environment. The Department's safety and health specialists must successfully confront disasters, such as Quecreek, and deal with emerging safety trends, such as increased injuries among Hispanic construction workers.

The Department seeks to make the best use of its resources by working with employers and workers — joining its efforts with theirs. The Department of Labor is encouraged by the progress that employers and workers alike are achieving in reducing workplace injuries and illnesses, and will continue to pursue new opportunities to leverage its impact by entering into partnerships with employers and workers committed to safer and healthier workplaces.

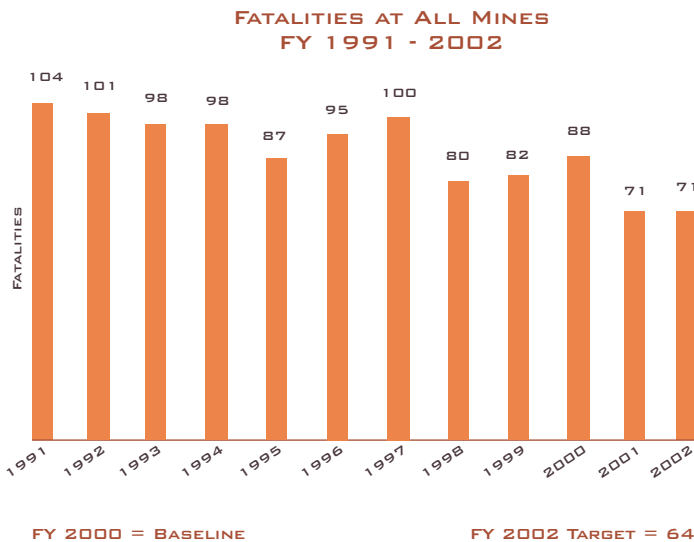
## Reduce Mine Fatalities and Injuries

Reduce the number of mine fatalities by 15% and the mine non-fatal injury incidence rate by 17% below the projected baseline.

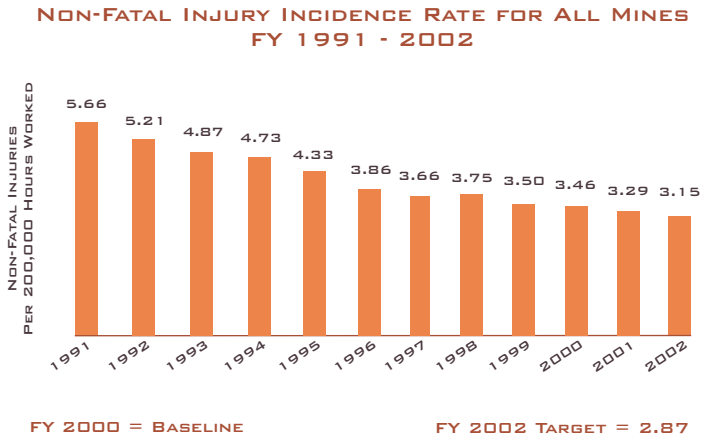
**Results:** This goal was not met. Mine fatalities decreased by 5.3 percent and the non-fatal injury incidence rate declined by 8.9 percent from the baseline.

**Program Description:** The mission of the Department’s Mine Safety and Health Administration (MSHA) is to protect the safety and health of the Nation’s miners. Through safety and health enforcement, compliance assistance, education, training, and technical assistance efforts and in partnership with the American mining community, MSHA works to eliminate fatalities and reduce the frequency and severity of accidents in accordance with the Federal Mine Safety and Health Act of 1977.

**Analysis of Results: Fatalities:** During FY 2002, accidents in the Nation’s mines claimed the lives of 71 workers — 39 in metal and nonmetal mines and 32 in coal mines. The total number of mining fatalities remained unchanged from FY 2001, but the distribution of fatalities shifted from the prior year when 30 workers had died in metal and nonmetal mining accidents and 41 in coal mining catastrophes. Although MSHA did not meet its FY 2002 target to reduce fatalities by 15 percent below the FY 2001 baseline target of 75 deaths, the statistics for FY 2001 and FY 2002 represent the lowest number of fatalities ever recorded by the mining industry.



**Injuries:** The non-fatal injury incidence rate declined to an estimated 3.15 in FY 2002 from the FY 2001 rate of 3.29, a decrease that was not sufficient to meet MSHA’s ambitious target of a 17 percent reduction from the FY 2000 baseline.



The Department has not significantly changed MSHA’s business processes since the enactment of the Mine Act in 1977, and has primarily emphasized enforcement mechanisms to improve the safety and health of the Nation’s miners. Mining deaths and injuries are at all-time lows, but appear to have reached a plateau. DOL is taking a proactive approach to break this trend. In FY 2002, the Department set significant new goals for the mining industry with the active support of its stakeholders — to reduce fatalities by 15 percent annually and cut the injury incidence rate in half over the next four years. To achieve these ambitious goals, MSHA has undertaken a culture shift that looks beyond the traditional enforcement approach to a more even balance among enforcement, education and training, and technical support. The success of many of the initiatives and action plans put in place to achieve these goals, initiated in the middle of this fiscal year, rely on training, acceptance and adoption by MSHA’s workforce, as well as the mining industry.

Accident and injury data are accurate and reliable. MSHA receives employment, injury, and accident data from mine operators and has an audit program in place that verifies annually the reliability of the data.

**Strategies:** The Department continues to reach out to members of the mining industry by holding numerous stakeholder meetings throughout the mining regions of the U.S. with hundreds of miners, educators, labor unions, trade associations, State agencies, equipment manufacturers, and mine operators attending. This year, MSHA launched a new emphasis on compliance assistance, to ensure that mine operators and miners understand the requirements for working safely and complying with the law. DOL is analyzing the most efficient and effective targeting of MSHA resources, and combinations of enforcement and compliance assistance activities, to produce the greatest positive effects on mine safety and health. This analysis will support the Department's efforts to focus MSHA's resources on mines that experience high accident and injury trends. These new initiatives do not diminish enforcement, but instead focus enforcement efforts, increase compliance assistance, improve professional development for MSHA inspectors, and increase interaction with miners and mine operators during the inspection process.

MSHA has identified root cause analysis as a critical strategy for reducing future mining injuries, and recently established an Accident Prevention Committee to develop programs and materials to address root causes of accidents. MSHA now conducts root cause analysis during each fatal accident investigation, and all accident reports include a statement that addresses the root cause(s). Consistent with this approach, MSHA's accident investigations now focus more on the activity being performed by the injured miner than the miner's occupation, job title, or location at the time of the accident. Analysis reveals most accidents occur during maintenance and repair activities by miners in all occupations, and MSHA personnel are now talking with miners, individually and in small groups, specifically about maintenance and repair safety, and distributing posters and stickers to remind them about the appropriate practices.

To expand education, training, and technical assistance, MSHA has added to its website links to accident prevention ideas from miners, industry, and Agency officials. MSHA is also developing a web-based newsletter service for stakeholders, to provide subscribers with instant notification of mining fatalities, hazard alerts, and other safety and health related news.

**W**hile operating a bulldozer on top of a coal surgepile, Jack Casteel broke through the surface of the pile, falling into a void that almost totally engulfed his bulldozer. Fortunately, chemically treated high strength "Cat Ultra Strength 40 Glass" protected the bulldozer's cab, preventing the shifting coal from breaking through the windows and crushing the miner. Jack was dug out of the surgepile unharmed, repaying many times over his company's \$16,000 investment in upgraded bulldozer windows.

Since 1980, 18 miners have died working on coal surgepiles. Jack owes his life to the Mine Safety and Health Administration's Accident Reduction Program which identifies the root causes of mining accidents and develops low-tech, inexpensive, quick fixes – such as the use of high strength glass in equipment – and shares the information with the industry to prevent future accidents.



PHOTO: DOL

The Department's performance data reveal that mining operations employing five or fewer employees have about one and one half times the fatality rate experienced by operations employing twenty or more, often because small mine operators lack adequate resources for health and safety programs and, as a result, tend to focus on the minimum requirements for compliance with the regulations rather than assessing overall mine safety. The Department is establishing a Small Mine Office in MSHA to foster cooperation and consultation with small mine operators to achieve reductions in injuries and illnesses. MSHA's WebPage now offers training materials specifically tailored to small mines, and the agency continues to increase compliance assistance and training visits to small mines.

Finally, in order to ensure maximum benefits from the new strategies described above, MSHA has initiated an extensive analysis of the tasks performed by the agency's enforcement workforce, including district health, safety and compliance personnel, supervisors, and educational field support personnel, to define the skills and knowledge that are key to MSHA's success in the 21st Century.

**Goal Assessment and Future Plans:** The Department has modified this goal for FY 2003 to begin to measure results in achieving a reduction of the fatal incidence rate, and to address the incidence rate for all mining injuries rather than only injuries that result in days lost from work. Changing this goal will provide MSHA with more accurate tools to measure annual changes in mine safety indicators. ■

*(Goal 3.1A — FY 2002 Annual Performance Plan)*



PHOTO: DOL

The MSHA mine rescue capsule shown here carried the nine miners trapped in the Quecreek mine safely to the surface. The capsule's diameter is only 21.5 inches, permitting it to be lowered inside of 24 inch casing. Constructed in 1972, the capsule for the last 30 years has been maintained and tested by MSHA. This was the first time it was used in a rescue operation.

## Reduce Miners' Exposure to Health Hazards

Reduce the percentage of respirable coal dust samples exceeding the applicable standards by 5% for designated occupations and reduce the percentage of silica dust samples in metal and nonmetal mines exceeding the applicable standards by 5% for high risk occupations, and reduce the percentage of noise exposures above the citation level in all mines by 5%.

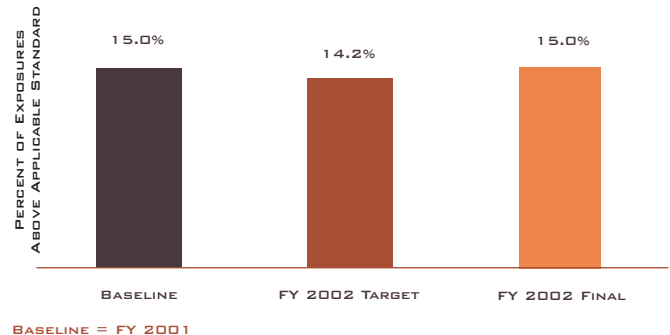
**Results:** This goal was not met. Compliance with silica dust and noise standards improved by 28 and 32 percent respectively from newly established baseline levels; however, overexposures to the applicable standard for respirable coal mine dust remained the same relative to FY 2001.

**Program Description:** The Department's Mine Safety and Health Administration (MSHA), through safety and health enforcement and compliance assistance, and in partnership with the American mining community, works to minimize health hazards in accordance with the Federal Mine Safety and Health Act of 1977. MSHA's programs endeavor to ensure the 300,000 men and women who work in over 14,000 American mines will not be at risk of illness as a result of their job.

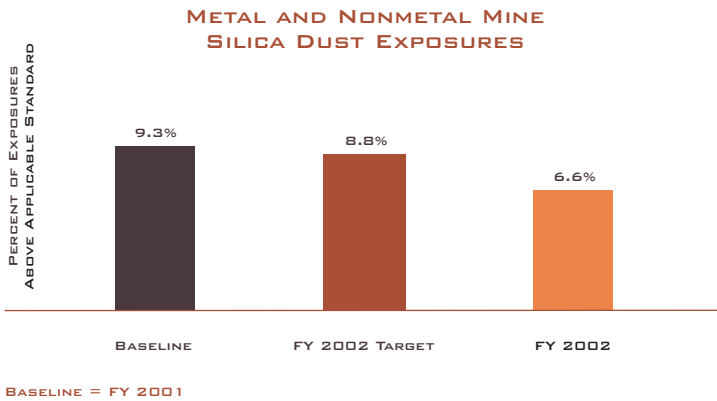
**Analysis of Results:** Disabling respiratory diseases among miners caused by exposure to excessive amounts of respirable dust—coal dust and crystalline silica in particular—remain pervasive but preventable health hazards. Elimination of black lung disease and silicosis is a continuing Department priority. Measuring exposures that lead to these conditions allow us to evaluate whether the Department and the mining community are making a positive impact on the factors that will determine whether today's mine workers can look forward to better health in the future than their predecessors.

*Coal Mine Dust:* Both respirable coal and respirable silica dust negatively affect the human respiratory system. Therefore, the Department modified the FY 2002 indicator to reduce coal miners' exposure to health hazards to incorporate the hazard of silica dust present in coal mines. Starting in FY 2001, DOL has counted all valid dust samples that exceed the applicable coal mine dust standard; the standard may be significantly reduced and is site-specific, based on the amount of silica present at each mine. This goal change, which establishes a more stringent performance measure, is designed to protect the entire coal mining population because it requires the Department to monitor and control not only respirable coal dust, but also silica dust exposures in coal mines. The significance of the change in this performance measurement is evident: under the old criteria, 10.2 percent of samples exceeded the standard in FY 2001. By applying the new criteria to establish a new baseline, the same year's data reveal that 15 percent of the measured exposures exceeded the applicable standard. The target for FY 2002 of 14.2 percent non-compliance was not met. The actual result, 678 overexposures out of 4521 coal dust samples collected, equals the FY 2001 baseline of 15 percent.

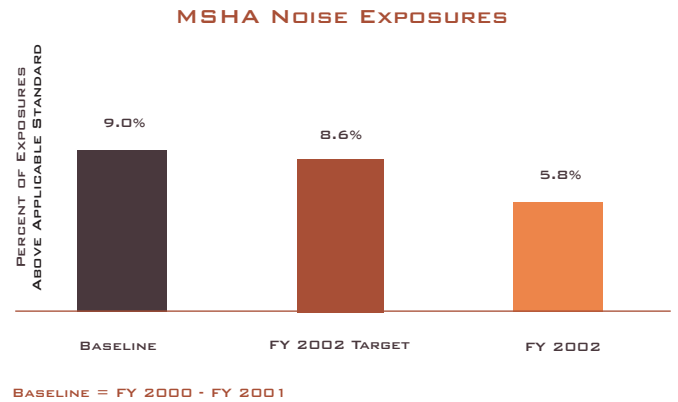
COAL MINE RESPIRABLE DUST EXPOSURES



*Silica Dust in Metal and Nonmetal Mines:* DOL changed this indicator in FY 2002. Previously, the Department relied on an indexing method, based on a weighted number of citable samples out of the total number of samples taken for non-designated high-risk occupations, to measure progress in achieving this indicator. This method statistically compared an occupation, mine type and commodity code for one year against the same occupation, mine type and commodity code for the next year. While statistically valid, the previous indexing method is difficult to explain in layman's terms and does not allow DOL to concentrate on the health of miners who may potentially be at greater risk of exposure to silica dust. Now, DOL analyzes the percent of samples that are citable this year and compares to the prior year for *designated* high-risk occupations. Using FY 2001 data, the baseline for these designated occupations was determined to be 9.3 percent. In FY 2002, preliminary end of year data indicates that, of the 1326 silica dust samples collected in the metal and nonmetal sector, 88, or 6.6 percent, exceeded the citable level of the applicable standard for these designated high-risk occupations, representing a reduction below the target of 8.8 percent. Since the method for determining results for this indicator differs significantly from the prior years' algorithm, previous data cannot be compared meaningfully to this year's results.



*Noise:* This is a new health indicator for FY 2002. Previously, noise regulations applied only to metal and nonmetal mines, but new regulations in FY 2001 also limit noise exposures in coal mines. Noise samples collected in FY 2000 and 2001 for all mines formed the performance measure baseline; 9.0 percent of these samples were above the citable level. During FY 2002, MSHA collected 16,474 valid samples and of these, 947, or 5.8 percent, did not comply with the regulations. This is well below the target of 8.6 percent and the baseline of 9.0 percent.



MSHA safety and health compliance specialists conduct dust and noise sampling following well-established procedures. A quality control process and edit checks assure the accuracy and reliability of the performance data.

**Strategies:** The Department is positively impacting the health of the Nation's miners by targeting compliance assistance efforts at mines with recurring dust and noise exposures in excess of the standard. These efforts include onsite monitoring, raising awareness of the hazards associated with exposure to excessive levels of respirable coal dust, silica dust and noise, and assisting operators to improve their dust and noise control practices.

The Department directs informational outreach programs to occupations with high dust exposures and excessive noise levels, and continues to work with operators who experience these problems. The Department is also developing web-based, interactive training programs on health related issues available via MSHA's Internet website. By providing assistance through operator educational and training seminars, compliance assistance visits, and companion sampling, DOL assists industry and labor in solving difficult health compliance problems. Additionally, DOL is increasing sampling and monitoring of dust control practices at mines with elevated dust levels, and of noise control practices at underground coal mines.

**Goal Assessment and Future Plans:** Seeking to expand and significantly improve health conditions for the Nation's miners, and in response to the promulgation of new noise standards to eliminate hearing loss among coal miners, the Department changed its health indicators in FY 2002. Further revision of the health goals is under study to take into account prior performance and emerging results trends. ■

*(Goal 3.1B — FY 2002 Annual Performance Plan)*

A West Virginia mining company, recognized the poor safety performance achieved by some of their mines and wanted to do something about it. With MSHA's cooperation, the company developed training classes for its managers and supervisors. Participants leave the course with increased awareness of their responsibility for mine safety and health as well as techniques to use in daily operations to eliminate hazards and prevent serious injuries. This increased awareness has translated into favorable accident statistics, with a significant downward trend in 2002. In 11 out of 17 mines receiving the training, accidents have been cut in half. The company expects this downward trend in accidents to continue.

MSHA has received extensive positive feedback from its safety compliance specialists and company supervisors who attended the training. Supervisors report that the opportunity for interaction with MSHA in a non-adverse setting made them more comfortable and receptive to the training and has caused them to be more open and active participants during inspections at their mines.



PHOTO: SHAWN MOORE

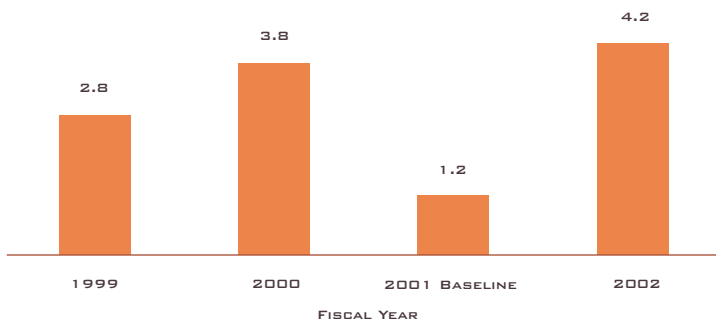


## Reduce Workplace Injuries and Illnesses

Reduce three of the most significant types of workplace injuries and causes of illnesses by 15% annually.

**Results:** This goal was not achieved. The average exposure severity at workplaces with silica inspections increased by 300 percent from the baseline. DOL met the lead exposure goal; the average lead exposure severity decreased 69 percent from the baseline. CY 2001 BLS data for amputations will be available in April 2003. The three-year average amputation rate for CY 1998-2000 (the most current data available) represents a 24 percent reduction from the CY 1993-1995 baseline.

SILICA EXPOSURES  
(AVERAGE SILICA EXPOSURE SEVERITY)



**Program Description:** The Department has emphasized silica, lead, and amputation hazards in its enforcement and compliance assistance programs since FY 1997. As one of its most important roles, the Department educates employers about the right precautions to protect employees from workplace hazards. In FY 2002, the Department enhanced its efforts to enter into partnerships, and through these partnerships disseminated guidance and information to help employers prevent silicosis, lead overexposure, and amputations. Because the illnesses caused by silica and lead exposures and amputation injuries are substantially reduced when businesses follow the Department's safety and health guidance and regulations, the Department also continued enforcement in establishments where these hazards are present.



PHOTO: MICHAEL CARPENTER

OSHA's partnership with workers, the Building and Construction Trades Council of Greater New York, the Building Trades Employer's Association, the City of New York, and other Federal agencies in the aftermath of the World Trade Center disaster helped ensure that no more lives were lost and only 57 serious injuries occurred. The lost workday injury and illness rate for the site was 3.1—well below the national average of 4.3 for demolition, cleanup, and debris removal contractors.

**Analysis of Results:**

**Silica and Lead Exposures:** DOL revised the FY 2002 performance goal from a 15 percent reduction from a fixed baseline to a more challenging 15 percent reduction in exposure severity annually. Silica and lead exposures measured during inspections in the past few years show considerable variability. DOL's current methodology measures the average exposure severity only in workplaces that the Occupational Safety and Health Administration (OSHA) inspects, which have been specially targeted as potentially hazardous sites, rather than in all workplaces. DOL recognizes that the current method does not satisfactorily measure progress on this goal because OSHA does not have data that represent worker exposure at all workplaces. In an effort to identify alternative measures, OSHA is currently exploring external sources of data on silica and lead exposure — from independent laboratories, industry associations, State health departments, and other sources. During FY 2002, Federal inspectors found that silica exposures complied with the limits set by DOL during 99 (65.6 percent) of the 151 inspections. Lead exposures fell within the standards during 177 (83.5 percent) of the 212 inspections conducted by Federal inspectors for this hazard.

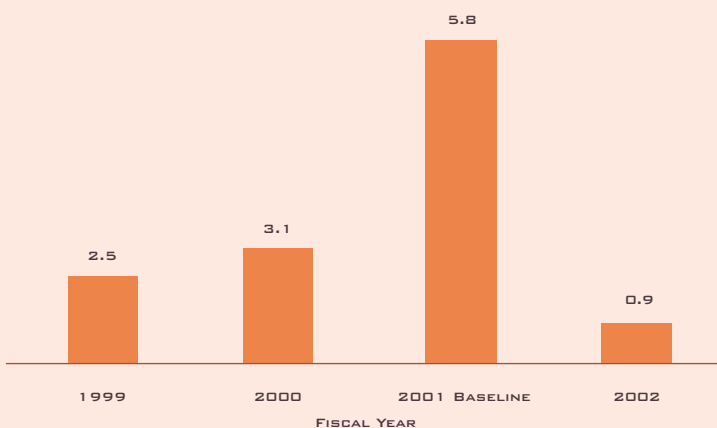
**Amputations:** DOL achieved its FY 2000 measure of reducing the amputation rate by 7 percent from the CY 1993-1995 baseline. Amputations have declined since 1997, both in terms of rates and numbers. Over 90 percent of amputations affect the fingers. The manufacturing industry division accounts for about half of all amputations. Machinery accounts for 55-66 percent of the amputations from 1992-2000, and saws and presses rank consistently among the most dangerous sources. Many sectors of the construction industry also have high rates and numbers of amputations.

**Strategies:**

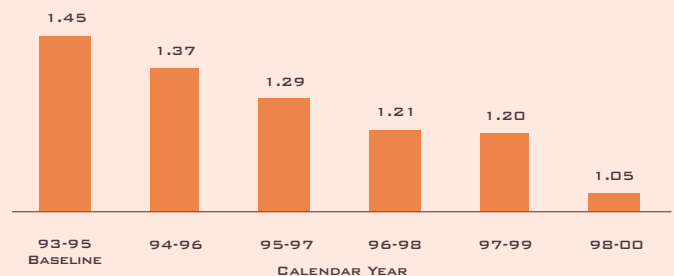
**Silica:** The Department continued to implement its nationwide special emphasis program that focuses inspections where silica exposure is likely to be highest, such as sandblasting in construction. The Department also continued work on a risk assessment of the health effects from silica exposure for a possible improved regulation for silica, added five partnerships covering sites where workers may be exposed to silica, and conducted seminars for contractors whose employees are exposed to silica dust.

**Lead:** In FY 2002, the Department continued the National Emphasis Program focusing enforcement and compliance assistance at establishments where there is lead exposure. Lead is a targeted hazard under DOL's National Emphasis Program for Shipbreaking. DOL has 21 Local Emphasis Programs nationwide that target lead exposure in various local workplaces. In addition, numerous sites where workers may be exposed to lead were added to the Voluntary Protection Program (VPP) — the premier safety and health partnership for businesses with demonstrated excellent safety and health records.

**LEAD EXPOSURES**  
(AVERAGE LEAD EXPOSURE SEVERITY)



**WORKPLACE AMPUTATIONS**  
(5-YEAR AVERAGES:  
RATE PER 10,000 FULL-TIME WORKERS)



**Amputations:** In FY 2002, the Department implemented the National Emphasis Program on Hazardous Machinery associated with amputations, which expands on an existing national emphasis program on mechanical power presses. This new initiative focuses on a combination of enforcement and compliance assistance with the aim of decreasing the number of amputations related to saws, shears, slicers, slitters, and brake presses. In addition, the Department developed an informative new publication *Safeguarding Equipment and Protecting Workers from Amputations* ([www.Publications/osha3079.pdf](http://www.Publications/osha3079.pdf)) and a fact sheet for amputations identifying hazardous machines and pointing out safeguards ([www.osha-slc.gov/OshDoc/data\\_General\\_Facts/amputation-factsheet.pdf](http://www.osha-slc.gov/OshDoc/data_General_Facts/amputation-factsheet.pdf)).

**Audits and Program Evaluations:** The Office of Inspector General issued a report on OSHA Strategic Partnerships that entail extended, cooperative OSHA relationships with employers, employees, and employee representatives. OIG recommended that OSHA enhance its metrics for measuring the results of these partnerships and improve partners' awareness of program requirements. In response, OSHA expanded its database for strategic partnerships, improved the quality of the data, and drafted a program directive to clarify program requirements. For more information, please see Appendix 3.

**Goal Assessment and Future Plans:** Recognizing the need for accurate and timely information with which to make program decisions, the Department is re-analyzing this goal, and will consider alternative ways to calculate the outcome measures, particularly for silica and lead exposures. DOL plans to continue the combined enforcement and compliance assistance approach by refining it to focus more precisely on the industry sectors and types of equipment identified with amputations. ■

*(Goal 3.1C — FY 2002 Annual Performance Plan)*

## Reduce Injuries and Illnesses in Workplaces Where the Agency Initiates an Intervention

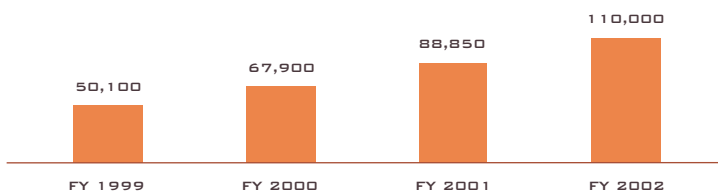
**Reduce injuries and illnesses by 20% in at least 100,000 workplaces where an intervention is initiated.**

**Results:** The Department achieved this goal. Since FY 1995, an estimated total of 110,000 workplaces that received an intervention experienced at least a 20 percent reduction in injury and illness rates within one or two years following an intervention by the Department's Occupational Safety and Health Administration (OSHA).

**Program Description:** OSHA interventions include: enforcement inspections, which occur after fatalities, serious injuries, and complaints, or through systematic targeting of employers in high-hazard industries; high injury/illness notification letters to employers with the highest rates, urging them to take voluntary action to improve workplace safety and health; and consultation visits, requested by the employer from DOL-funded, State-run consultation programs providing free and confidential assistance for improving occupational safety and health management systems.

**Analysis of Results:** The current result is an estimate based on the methodology developed previously by a researcher from Clark University for workplaces having received an intervention that took place between FY 1995 and the end of FY 2001. DOL further analyzed the impact of consultation interventions in an evaluation report completed in July 2002. Inspections with a preceding consultation found an average of 0.66 fewer serious violations, assessed an average of about \$3,000 less in penalties, and identified declines in lost workday injury and illness rates following certain types of consultations.

**WORKPLACES RECEIVING DOL INTERVENTIONS FROM FY 1995 TO PRESENT EXPERIENCING AT LEAST 20% REDUCTION IN ILLNESS AND INJURY RATES**



**Strategies:** Strong, fair and effective enforcement is a major strategy to achieve this goal. Recently, DOL expanded its enforcement program. In FY 2002, DOL inspectors conducted about 37,500 safety and health inspections — the highest total in eight years. The Department plans to add another 1,300 in FY 2003. DOL's general industry "site specific" targeting efforts involve identifying 13,000 sites with high injury and illness rates. DOL sends each site a letter urging them to take voluntary action to eliminate the hazards causing their high rates. Each letter includes a copy of the employer's injury and illness data, information on the most common occupational safety and health hazards in the industry, and suggestions for sources of safety and health assistance. DOL then conducts inspections at those with the highest injury and illness rates. DOL is also establishing a method for targeting specific construction sites that need enforcement attention.

The consultation program serves small businesses in high-hazard industries, assisting them by identifying serious job safety and health hazards and by suggesting approaches for solving safety and health problems. Employers commit to correcting in a timely manner any serious hazards identified. DOL has sought to expand the number of employers served by this program each year.

**Audits and Program Evaluations:** OSHA completed an audit of the validity and reliability of workplace injury and illness data: *OSHA Data Initiative Collection Quality Control: Analysis of Audits on 2000 Employer Injury and Illness Recordkeeping*. Most employers are required to record injuries and illnesses. The audit found that employers' reports of injuries and illnesses provide reasonable and accurate data. The audit suggests a slight improvement among employers in maintaining the data, and concluded that OSHA can continue to use the data to meet its program and reporting needs. OSHA will continue the audit and use the results to reach out to employers to help them improve their recordkeeping.

In July, OSHA completed the *Evaluation of OSHA's Consultation Program*. Inspections of establishments that had a consultation visit in the prior two years found significantly fewer serious violations, imposed penalties less often, and imposed smaller penalties. When the analysis was limited to those consultations that provided a complete safety hazard assessment of all working conditions, equipment, and processes at the worksite, an 8.9 percent decline was found in the establishment's lost workday injury and illness rate.



PHOTO: DOL/OSHA

Under the Idaho General Contractors Partnership, the general contractor conducts safety and health audits on subcontractors at the site...and holds them accountable for hazard-free work areas. This gives tremendous leverage, with the general contractors auditing nearly 10 times as many subcontractors than OSHA inspects. Prior to the partnership, the fatality rate was 21 per 100,000 employees; since the partnership, that rate has dropped to 4.5.

The General Accounting Office (GAO) issued a report entitled, *Workplace Safety and Health: OSHA Should Strengthen Management of Its Consultation Program* (GAO-02-60). In it, GAO recommended that the Department restructure the formula for distribution of funds to State consultation projects. DOL agreed to revise its formula to allocate funds based on performance criteria. GAO also recommended that the Department improve the measurement of the program and better assess the impact of the program on worker safety and health. OSHA will address these recommendations through the Integrated Management Information System redesign project and by analyzing injury and illness data from the Data Initiative for businesses served by the consultation program. See Appendix 3 for more information.

**Goal Assessment and Future Plans:** The Department's goal for FY 2003 is to reduce injuries and illnesses by 20 percent in at least 125,000 workplaces following an intervention. Realizing the need for more comprehensive performance information, DOL is exploring options for gathering and analyzing data as a more systematic and coordinated part of OSHA interventions. ■

*(Goal 3.1E — FY 2002 Annual Performance Plan)*

## Decrease Fatalities in the Construction Industry

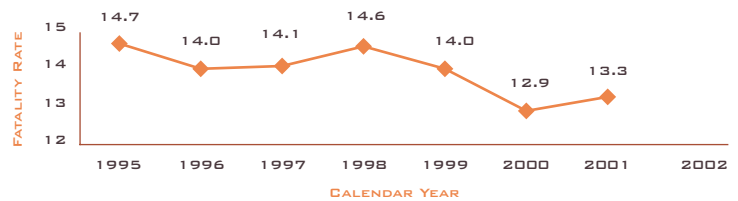
Decrease fatalities in the construction industry by 11% by focusing on four leading causes of fatalities (falls, struck-by, crushed-by, and electrocutions and electrical injuries).

**Results:** The goal was substantially achieved. The Calendar Year (CY) 2001 fatality rate (the latest data available) declined by 9.5 percent from the baseline.

**Program Description:** To reduce fatalities in the construction industry, the Department's Occupational Safety and Health Administration (OSHA) conducts inspections, develops industry-specific standards and guidelines, and offers compliance assistance programs, including partnerships, focused on the leading causes of fatalities. During FY 2002, the Department initiated or continued many local partnerships covering thousands of workers under the national level partnership agreements with the Associated Builders and Contractors and the Associated General Contractors.

**Analysis of Results:** The Department measures this goal using the BLS Census of Fatal Occupational Injuries, which has a nine-month lag time in availability and includes workers not under DOL's occupational safety and health jurisdiction, such as self-employed workers. The fatality rate declined from 14.7 deaths per 100,000 workers in the baseline year (CY 1995) to 13.3 in CY 2001, with the 9.5 percent decline in the fatality rate representing 86 percent of the targeted reduction. The CY 2001 results reflected an increase in the construction fatality rate from the historic low of 12.9 deaths per 100,000 workers in the prior year. This increase probably reflects random fluctuations in the construction fatality rate.

PRIVATE SECTOR CONSTRUCTION FATALITY RATES (FATALITIES PER 100,000 WORKERS)



In order to obtain data on a more timely basis to assess the Department's progress in reducing construction fatalities, DOL plans to expand the use of data from OSHA's internal management information system. These data provide information only on workers within the Department's jurisdiction and usual operating parameters. Using data from OSHA's internal management information system, the fatality rate declined in FY 2001 by 14.7 percent compared to a FY 1995 baseline.

**Strategies:** As the construction industry suffers the most fatalities of any sector covered by the Occupational Safety and Health Act, the industry has traditionally been a focus of DOL's inspections, with over half of all inspections occurring in construction. Construction inspections conducted by DOL inspectors increased to 21,344 in FY 2002 from 20,208 in FY 2001 — a 5.6 percent increase.

In addition, in FY 2002, DOL continued to increase the number of partnerships and made construction safety and health training more accessible. Examples of the Department's efforts to direct assistance to workers who could most benefit include:

- DOL entered into a partnership with the Hispanic Contractors of America, Inc. to promote safe and healthful working conditions for Hispanic construction workers through effective training and increased access to safety and health resources in Spanish. This partnership will expand DOL's outreach to Spanish speaking workers and employers to address a rise in fatality and injury incidents among Hispanic construction workers.

In Georgia, DOL is working with the Roswell Intercultural Alliance to provide safety training and employee rights training for day laborers in conjunction with the Georgia Institute of Technology, some area construction company safety directors, and the Georgia Chapter of the Associated Builders and Contractors. This special training program has attracted employers interested in hiring day laborers that understand safety concepts and how to protect themselves. The workers find that they can get better jobs, which can turn into permanent employment.



AN INTERCULTURAL ALLIANCE IN GEORGIA HELPS EDUCATE DAY LABORERS ABOUT JOB SAFETY AND HEALTH CONCEPTS.

PHOTO: DOL/OSHA

- In response to serious injury and fatality incidents during telecommunication tower erection in Chicago, DOL signed a regional partnership with an association of telecommunication tower erectors. The partnership calls for all member employers to follow safe-building practices such as having a safety and health monitor on-site at all times, and a safety and health program in place.

In addition, DOL pursues training and outreach strategies designed to magnify its impact. During FY 2002, DOL awarded over \$1 million in construction-industry training grants to employer associations, labor-management organizations, and academic institutions to develop training and/or educational programs, recruit workers and employers for the training, and conduct the training. The Department's outreach activities focus on trade associations for the specific sectors of the construction industry with the highest fatality rates, such as roofing, electrical work, steel erection, and highway construction.

Finally, DOL continues to develop several safety and health regulations related to the construction industry. Every year, according to BLS fatality data, more than 50 workers are killed at road construction sites. The Department issued a new roadway construction standard for traffic control signs, signals, and barricades that is expected to provide better protection from traffic hazards. The Department anticipates that its steel erection standard, developed with industry and union groups, will prevent 30 fatalities and 1,142 injuries annually.

In FY 2003, DOL plans to improve targeting for construction inspections, using newly collected injury and illness data from about 13,000 larger contractors who control about half of the dollar value of all construction jobs in the United States. According to OSHA's management information data, an average of 70 construction fatalities a year occur in trenching accidents. In FY 2003, DOL plans to conduct a review of the effectiveness of its regulation for trenching and excavation to assess the burden on contractors to comply with the regulation and develop recommendations to make compliance easier.

**Audits and Program Evaluations:** The General Accounting Office completed a report entitled *Labor's Efforts to Enforce Protections for Day Laborers Could Benefit from Better Data and Guidance*, which found that current data on injury and illness might overlook hazardous workplaces for day laborers. In response to the report's recommendations, the Department will continue to make a concerted effort to address issues related to day laborers; OSHA's regional and area offices will continue working at a local level with a variety of organizations — faith-based, community, academic, and governmental — to address the issues related to day laborers. DOL will also continue exploring the best way to collect data on the safety and health violations at worksites employing day laborers, redesigning its current data collection tool, and reviewing current interpretations for consistency regarding workplace safety and health for day laborers. See Appendix 3 for more information.

**Goal Assessment and Future Plans:** For FY 2003 DOL will target a 15 percent reduction of construction fatalities from the baseline. ■

*(Goal 3.1F — FY 2001 Annual Performance Plan)*

## Reduce Work Site Injuries and Illnesses Through Voluntary Cooperative Relationships

Reduce injuries and illnesses by 15% at work sites engaged in voluntary, cooperative relationships with DOL.

**Results:** This goal was achieved. The lost workday injury and illness incidence rate declined by 47 percent at sites engaged in voluntary, cooperative relationships with DOL.

**Program Description:** DOL offers a number of safety and health partnerships. This goal measures the impact of two of these — the Voluntary Protection Programs and the Safety and Health Achievement Program — on reducing injuries and illnesses.

The Voluntary Protection Programs (VPP) recognize and promote excellence in worker safety and health. VPP worksites operate effective safety and health program management systems that result in reductions in injuries and illnesses. VPP Star targets companies with comprehensive, successful safety and health programs. To qualify for VPP Star, a site must acquire and maintain three-year injury and illness rates below the national average for the site's Standard Industrial Classification. VPP Merit is a stepping stone to the VPP Star program. To qualify for VPP Merit, a site must achieve rates below the average within two years. OSHA estimates that at least 95 percent of existing VPP sites maintain their VPP status. In rare instances (estimated at 5 percent or less), a VPP site's three-year rates rise above those within their industry, either due to changes in rates at the site or in the averages. OSHA places these sites in a special status, allowing them one to two years to improve.

The Safety and Health Achievement Recognition Program (SHARP) provides incentives, recognition, and support to smaller employers in industries or occupations characterized by above average injury and illness rates to develop and improve their safety and health programs. DOL assists SHARP participants through onsite consultations and offers incentives, including exemption from routinely scheduled OSHA inspections of high hazard industries, to participants that demonstrate performance improvements.



PHOTO: OSHA/SUPERTREE

Voluntary Protection Programs (VPP) prove that management, labor, and government can work together in successful partnerships to reduce worker deaths, injuries, and illnesses. VPP sites report fewer worker fatalities, injuries, and illnesses; lost workday case rates generally 50 percent below industry averages; and lower workers' compensation and other injury- and illness-related costs than before they joined the program. OSHA added 133 more VPP sites during FY 2002.

Staff at International Paper's Texas SuperTree Nursery in Bullard, Texas, prepare to raise the VPP flag recognizing the company's Star status for outstanding safety and health.





**Analysis of Results:** A study commissioned by DOL showed a combined 47 percent decline in the lost workday injury and illness incidence rate for the two programs, greatly exceeding the goal's 15 percent target reduction. The declines in the incidence rates for VPP and SHARP programs individually were 48 percent and 50 percent, respectively. Because data were not available for all worksites participating in VPP and SHARP in FY 2001, these declines are based on a subset of sites (119 of 560 for VPP and 61 of 384 for SHARP). However, a distribution analysis of characteristics of this subset, including size, industry sector and use of contract employees, showed that the subset used was reasonably representative. This suggests that results of the subset are a reasonable estimate of results for all participating worksites.

**Strategies:** The Voluntary Protection Program ranks as DOL's premier partnership program because it recognizes worksites that have demonstrated excellence in their safety and health programs. In view of the success of the Voluntary Protection Program, SHARP, and other partnership programs in dramatically reducing workplace injuries and illnesses, a significant expansion of employer participation in these programs while maintaining the programs' achievements represents a key strategy for the Department in FY 2003.

**Goal Assessment and Future Plans:** In the FY 2003 Annual Performance Plan, the Department discontinued presenting the performance of voluntary, cooperative programs as an independent goal. DOL will continue to monitor the effectiveness of partnerships and other strategies, and will discuss their relative contributions toward achieving the results of more comprehensive goals to reduce the total level of injuries and illnesses in the Nation's workplaces. ■

*(Goal 3.1G — FY 2001 Annual Performance Plan)*

PHOTO: OSHA/UNITED SPACE ALLIANCE

Four NASA sites are in OSHA's Voluntary Protection Programs for workplaces with exemplary safety and health programs.