

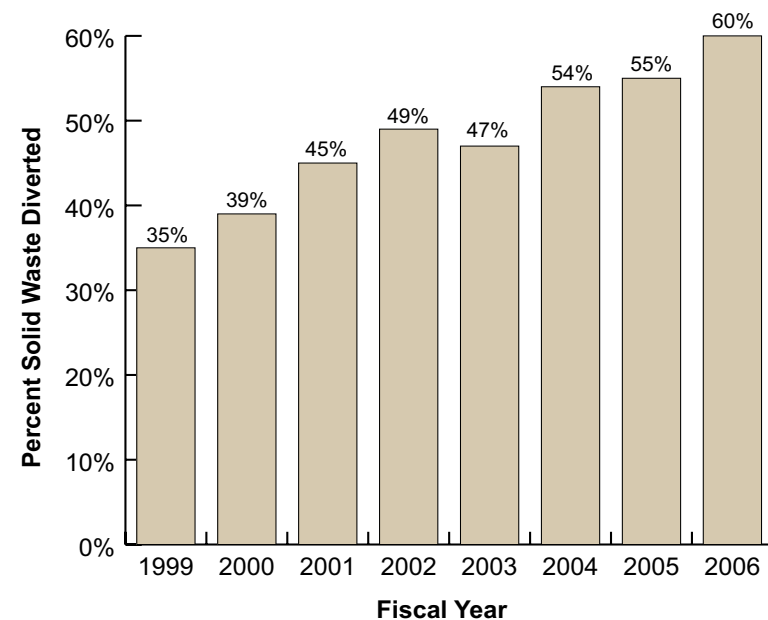
The Department of Defense (DoD) has demonstrated a strong commitment to reducing the amount of solid and hazardous waste entering the waste stream. DoD employs integrated solutions with a focus on reducing waste generation and increasing the diversion of materials from the waste stream through better management and recycling whenever feasible and cost effective. These program efforts not only reduce the amount of waste entering landfills or incinerators, but lessen future cleanup costs and requirements by minimizing the asset footprint required to manage solid and hazardous materials over the lifecycles of weapon systems.

Integrated Solid Waste Management

Integrated solid waste management practices have been developed and employed throughout the Department based on DoD policies to enhance and sustain mission readiness through cost-effective acquisition that achieves compliance and reduces resource consumption. In 1998, DoD set a solid waste diversion rate goal of 40 percent or greater by the end of Calendar Year (CY) 2005 in response to solid waste diversion requirements in Executive Order 13101, entitled "Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition." DoD established the total solid waste diversion rate metric to support goals for diversion and to calculate the rate at which installations prevent non-hazardous municipal solid waste from entering a disposal facility. This goal was met in Fiscal Year (FY) 2001 when DoD's solid waste diversion rate reached 45 percent, as shown in Figure V-1. In FY2005, DoD revised the solid waste reporting metric to separately identify construction and demolition (C&D) debris and municipal solid waste diversion rates. DoD continues to integrate solid waste management practices throughout the Department to enhance and sustain mission readiness. This meets compliance requirements and reduces resource consumption.

Due to varying recycling markets around the country, the percentage of solid waste diverted in a year varies depending on the amount, location, and types of solid waste generated. DoD's C&D solid waste diversion rate is also dependent on the schedule for construction, demolition, and renovation projects, which produce large quantities of C&D debris. In FY2006, DoD generated a total of 6.3 million tons of solid waste, consisting of 3.6 million tons of C&D debris and 2.7 million tons of non-hazardous municipal solid waste. The generation of municipal solid waste equates to 3.8 pounds per person per day. As shown in Figure V-1, the Department had an overall diversion rate of 60 percent in FY2006. This includes diversion rates of

Figure V-1
DoD Solid Waste Diversion Rate



75 percent for C&D debris and 40 percent for non-hazardous municipal solid waste. Figure V-2 shows the amounts of solid waste generated and diverted, and percent diverted by DoD Components in FY2006. Through efforts to divert solid waste, DoD has not only met, but exceeded agency goals of land resource management by reducing the flow of waste, and therefore extending the lives of the landfills. Achievement of solid waste program goals through integrated solid waste management practices has also led to a cost avoidance of over \$160 million, through a reduction in the amount of solid waste and C&D debris received by a landfill or incinerator and the associated costs.

Hazardous Waste Reduction and Disposal

DoD has sustained a strong dedication to reducing hazardous waste with a 62 percent decrease in the total amount of hazardous waste disposed since CY1995. Hazardous waste data are collected as a calendar year metric. As shown in Figure V-3, DoD's hazardous waste reduction efforts prevented over 132 million pounds of hazardous waste disposal in CY2005. This reduction is largely due to continual efforts throughout the Department to identify opportunities for reducing hazardous waste generation. Through reduction and elimination of the use of hazardous materials, DoD is able to decrease health risks to personnel and reduce the number of accidents that can occur when using these materials and any associated cleanup costs.

Army

To face the many challenges associated with waste management, the Army has effectively maintained its solid and hazardous waste reduction programs, realizing successes through regulatory compliance and economic benefit.

Integrated Solid Waste Management

According to Figure V-2, diversion accounted for 59 percent of all Army solid waste disposal in FY2006. The Army effectively demonstrated commitment to solid waste reduction in C&D processes, with 72 percent of this debris from landfills diverted into productive reuse and 43 percent of non-hazardous municipal solid waste. The Army's efforts to divert waste from landfills and incinerators have resulted in an avoidance of over \$74 million in solid waste disposal costs. The qualified recycling program posted gross revenues of \$20.9

Figure V-2
FY2006 Solid Waste Diversion

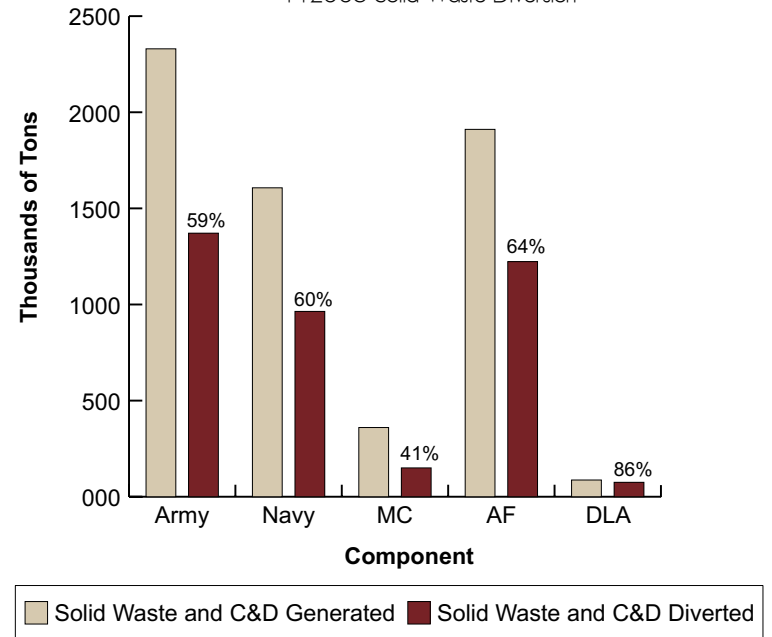
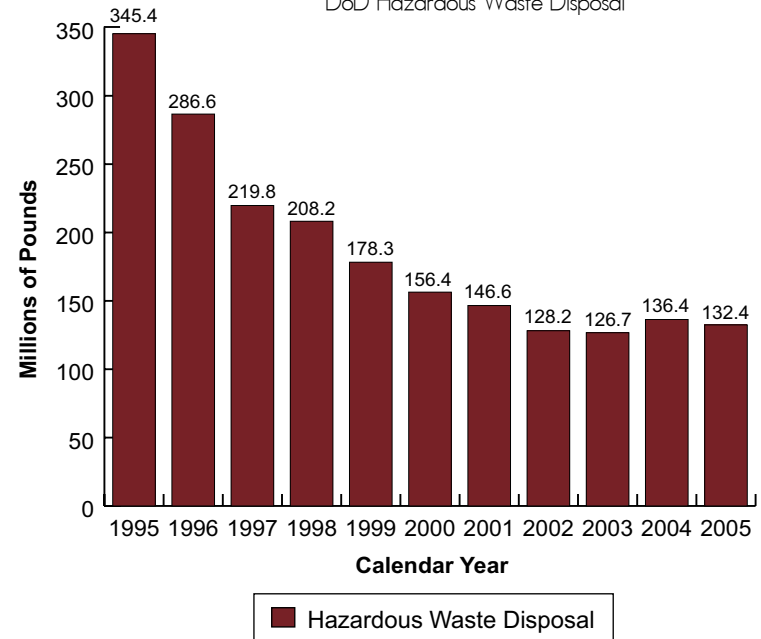


Figure V-3
DoD Hazardous Waste Disposal



million. Most of these proceeds went toward operation and improvement of the program.

Hazardous Waste Reduction and Disposal

The Army disposed of over 37 million pounds of hazardous waste in CY2005, as shown in Figure V-4. This amount represents a decrease in hazardous waste disposal for the Army, demonstrating success in hazardous waste program initiatives. The Army achieved a nine percent reduction in overall hazardous waste disposal since CY1995, indicating a strong commitment to protecting human health and the environment through hazardous waste program initiatives.

Navy

To decrease risks to human health and the environment, the Navy has strictly complied with DoD and Department of Navy policies regarding solid and hazardous waste management.

Integrated Solid Waste Management

In FY2006, the Navy achieved an overall diversion rate of 60 percent through the implementation of integrated solid waste management practices, as seen in Figure V-2. The Navy effectively accomplished this reduction through a 78 percent diversion of C&D debris and a 27 percent diversion of non-hazardous municipal solid waste.

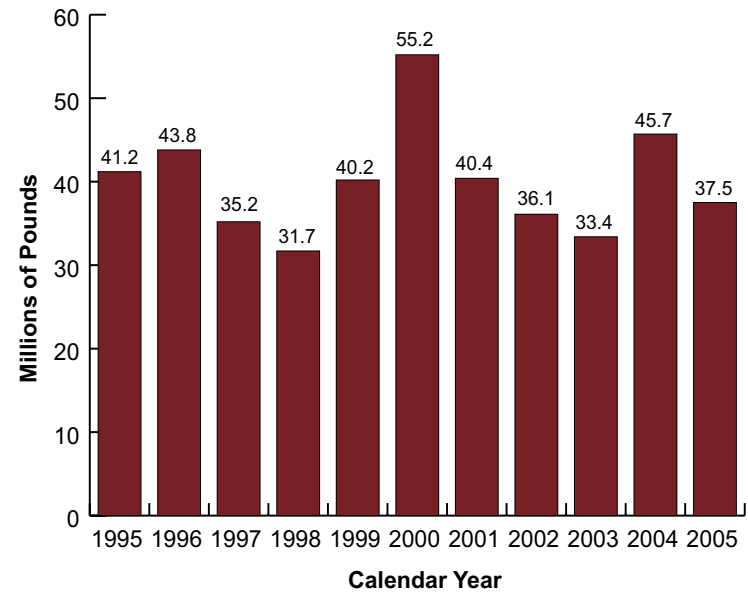
Hazardous Waste Reduction and Disposal

The Navy has accomplished significant progress in hazardous waste disposal through a reduction rate of 68 percent since CY1995. In CY2005, the Navy disposed of 58.2 million pounds of hazardous waste, as shown in Figure V-5.

Marine Corps

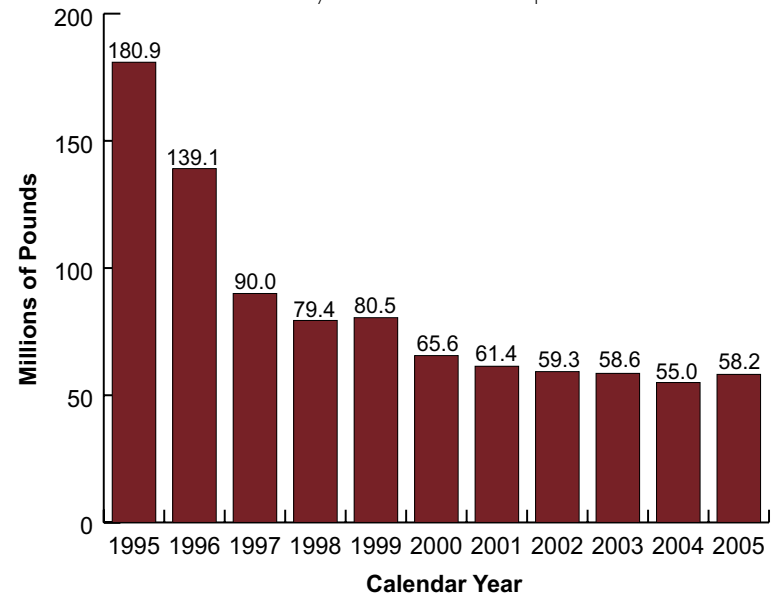
Through consistent accomplishment of DoD's solid and hazardous waste reduction goals, the Marine Corps has shown a long-term commitment to diversion and reduction of materials from the waste stream.

Figure V-4
Army Hazardous Waste Disposal



■ Hazardous Waste Disposal

Figure V-5
Navy Hazardous Waste Disposal



Integrated Solid Waste Management

The Marine Corps achieved a 41 percent diversion rate of all solid waste, as shown in Figure V-2. In FY2006, the Marine Corps successfully diverted 64 percent of C&D debris and 28 percent of non-hazardous municipal solid waste from entering the waste stream.

Hazardous Waste Reduction and Disposal

The Marine Corps achieved further success in hazardous waste reduction with a 79 percent decrease in the total amount of hazardous waste disposal since CY1995. According to Figure V-6, the Marine Corps disposed of 16.8 million pounds of hazardous waste in CY2005.

Air Force

The Air Force has demonstrated dedication to solid and hazardous waste management by diverting large amounts of non-hazardous municipal solid waste from landfills, recycling wastes that could potentially be hazardous, and preventing waste at its source through the implementation of broad acquisition and supply programs to procure more environmentally preferable products.

Integrated Solid Waste Management

Effective diversion of waste from landfills and incinerators has allowed the Air Force to avoid over \$40 million in solid waste disposal costs in FY2006. In FY2006, 76 percent of C&D debris and 48 percent of non-hazardous municipal solid waste was diverted from all disposal facilities. As shown in Figure V-2, the Air Force had an overall diversion rate of 64 percent.

Hazardous Waste Reduction and Disposal

Successful efforts by Air Force weapons systems engineers and maintainers and the logistics community have resulted in a 37 percent reduction of hazardous waste disposal since CY1995. The Air Force's implementation of shelf-life management and "leaning" of processes have reduced the amount of hazardous waste disposed of, resulting in improved operations and a decrease in occupational and environmental risks. Figure V-7 illustrates progress with

Figure V-6
Marine Corps Hazardous Waste Disposal

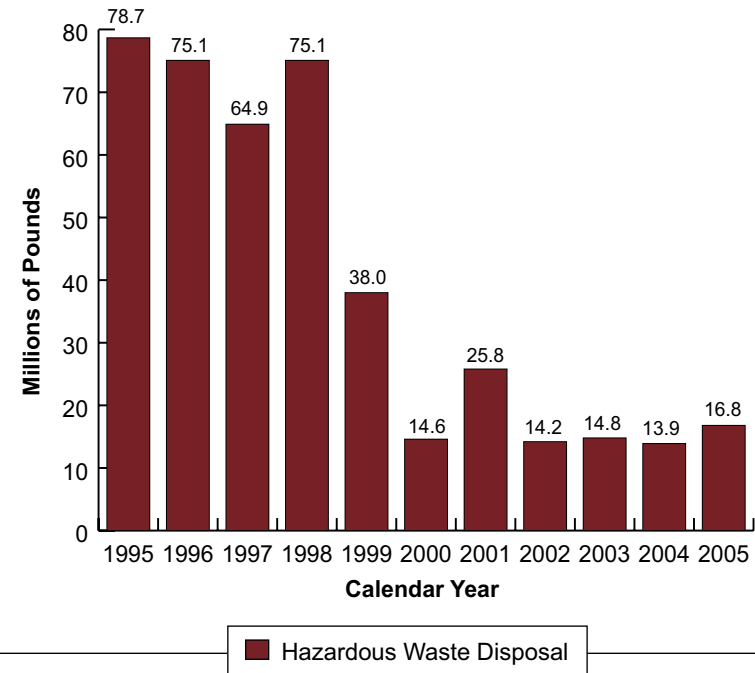
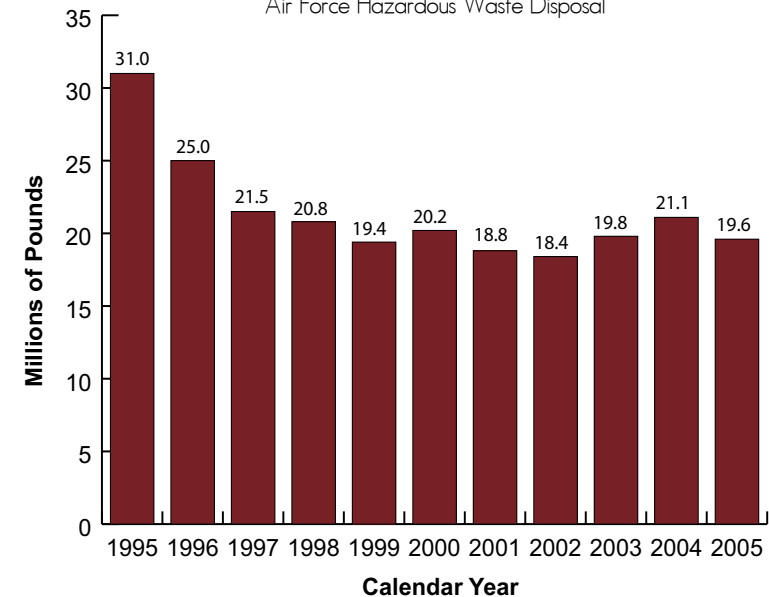


Figure V-7
Air Force Hazardous Waste Disposal



regard to hazardous solid waste diversion and cost avoidance, with a total disposal in CY2005 of 19.6 million pounds of hazardous waste.

DLA

Through successful program implementation, DLA has consistently achieved and exceeded DoD's solid and hazardous waste reduction and diversion goals, resulting in greater protection of human health and the environment.

Integrated Solid Waste Management

In FY2006, DLA surpassed DoD's 40 percent solid waste reduction goal with an 86 percent diversion from disposal facilities, as shown in Figure V-2. DLA also exhibited dedication to the reduction of C&D wastes, with a 96 percent diversion rate in FY2006 and a 45 percent diversion rate for municipal solid waste. The success of DLA's solid waste reduction program has not only reduced the amount of wastes entering landfills, but has also produced an economic benefit of \$7,000.

Hazardous Waste Reduction and Disposal

Figure V-8 shows DLA's tremendous hazardous waste program achievement of a 97 percent reduction in hazardous waste disposal since CY1995, which includes waste disposed by the Defense Reutilization and Marketing Service (DRMS); with only 0.4 million pounds disposed of in CY2005. DLA achieved a 71 percent reduction in hazardous waste disposal since CY1998, which does not include waste disposed by DRMS. These reduction rates not only demonstrate a strong compliance with federal and DoD hazardous waste standards, but a reduction in occupational and environmental risk among all DLA installations.

Figure V-8
DLA Hazardous Waste Disposal

