

## **INTRODUCTION**

Defense Distribution Depot Susquehanna, Pennsylvania (DDSP) is the largest distribution center in the Department of Defense. It is one of 23 depots under the command of Defense Distribution Center (DDC) and Defense Logistics Agency (DLA). DDSP commands and controls the Primary Distribution Site on the East Coast for the delivery of logistics and distribution services to all components of the U.S. Armed Forces and specified national programs. The Installation encompasses 848 acres along the Susquehanna River in New Cumberland, Pennsylvania. Facilities within the Installation include over 200 buildings and 26 miles of road. DDSP employs 2,685 civilian and military personnel in addition to serving as a host site to 809 civilian and military tenant personnel. In addition, the DDC employs 474 personnel, making the DDSP one of the areas top 10 employers. The Installation is also called home for 140 families living in the Military Housing Area.

## **BACKGROUND**

The DDSP has established and manages an aggressive Qualified Recycling Program (QRP). Since the program was established early in the 1980's with the collection and bundling of cardboard, the program has grown to include 21 different items or commodities being recycled on a daily basis. All administrative offices and warehouses have collection bins located throughout their areas. This includes all DDSP, DDC and tenant activity areas. Additionally, there is a weekly curbside recycling pickup for the housing residents. Each resident receives several containers for their household recyclables. The overwhelming response of the residents for this program is positive and they willingly support our efforts.

The DDSP Recycling Program is self-supporting. All labor, equipment, maintenance, utilities, transportation, and supply costs are paid for from the revenue received from the sale of the recycling commodities. In accordance with Public Law 97-214, any balance after the costs of operations, maintenance and overhead of the recycling program is used for pollution abatement programs, safety awareness and recycling awareness and education on the Installation. Items such as mugs, pens, lunch bags (all made from recycled content) have been distributed to the employees of the DDSP, the DDC and tenant activities who participate in the recycling program as a way of promoting and enhancing the awareness of the recycling program.

The manpower structure for the QRP consists of the Recycling Program Manager and Business Manager, one recycling assistant, three materials handlers, one laborer, one motor vehicle operator, six forklift operator/woodworkers and two work leaders. Equipment for the recycling program includes: one two-ram horizontal baler, one single ram horizontal baler, one bobcat, five forklifts and one paper shear. The two-ram baler processes all cardboard and paper products while the single ram baler processes all aluminum and bi-metal cans, as well as all plastic and insulated wire items. The paper cutter provides the capability to cut the spines off glue back manuals so the remaining paper in the manual can then be recycled. This equipment is critical to the success of the recycling program and provides the mechanical power to sort, separate and process 21 different recyclable commodities. All commodities processed in the recycling center are loaded by forklift into trailers using a portable ramp. Cardboard and paper are sold in truckload quantities to various local recycling companies.

## **PROGRAM SUMMARY**

### **Types of Solid Waste Materials Recycled**

The QRP consists of three primary areas: core recycling sales, the pallet storage and sorting yard, and the direct/miscellaneous sale area. Commodities recycled through the core program include: cardboard, paper, newspaper, lead acid batteries, light steel, brass, copper wire, aluminum, metal banding, steel drums, aluminum cans, tin cans, glass, plastic, and copper pipe. The pallet yard sells scrap wood, junk pallets, Grocery Manufacturing Association (GMA) pallets and other odd pallets. Direct/miscellaneous sales include the sale of excess non-reusable desks, chairs, cabinets, etc.

### **Other Materials Recycled**

Additional items that are also recycled include: used oil, oil filters, empty cans (paint/aerosol), spent carbon, wash rack pits, nickel cadmium (NiCad) batteries, antifreeze, and fluorescent light bulbs. The bulbs are collected on site and then transported to an approved Pennsylvania facility for mercury extraction. The metal end caps and glass are also recycled. Total volume recycled of the above commodities for FY03 and FY04 is 97 tons. While the aforementioned items do not generate revenue for the recycling program, it is environmentally sound to include them in the program and further reduce the amount of waste going into landfills.

### **Solid Waste Disposition**

Solid waste figures (in tons) from FY03 through FY04 are as follows:

	<u>FY03</u>	<u>FY04</u>
Recycled	5,979	7,228
Landfilled	225	289
Incinerated *	944	1,004

\*Waste to Energy Incinerator

### **Cost Avoidance**

The cost avoidance figures from the recycling program are determined by the volume and the tipping fees at both the incinerator and landfill. The following are program cost avoidance figures from FY03 and FY04:

FY03 \$243,618                      FY04 \$391,355

### **New Recycling Technologies/Source Reduction**

New ideas and initiatives to find markets for various items not previously included within the program are continually being considered and/or implemented. Magazines are a good example of an item that was once part of the solid waste stream. Through marketing efforts, the recycling center found recyclers who will buy magazines baled or mixed with newspaper. Telephone books are a new commodity that are combined with newspaper, baled and sold.

Regular visits by various local recyclers allows for new markets to be generated by the needs of those companies. Some commodities can be sold in smaller quantities if recyclers are in need of combination loads of paper, cardboard, or other recyclable commodities. Scrap wood is also sold by the truckload. Other scrap wood that cannot be sold through the program or reutilized by the government is transported to a local mulching company.

In the past, the demolition of old World War (WW) II era wood buildings located on this Installation has been another challenge that we have encountered. In order to reduce the amount of solid waste going to the landfill or incinerator, DDSP has worked closely with Pennsylvania's Department of Environmental Protection and several local fire departments to use the facilities for fire training exercises. Prior to the demolition burns, the buildings were recycled and all hazardous waste removed. Ceiling tiles, carpeting, windows, doors, paneling, siding, plumbing, and electrical items, (lights, toilets, switches, pipes) were all removed and sold through the recycling program.

In the past year, 10 WWII era warehouses were demolished and their contents were marketed and sold through the DDSP QRP prior to awarding the demolition to a contractor. Approximately 346,750 bricks, 134,735 board feet of timber, and 761.21 tons of scrap metal were salvaged by the contractor resulting in only 1,052 tons entering a landfill.

## **ACCOMPLISHMENTS**

### **Affirmative Procurement**

DDSP is taking an aggressive approach to upgrade our current affirmative procurement program. Training, depot wide awareness and more accurate tracking is being promoted to all personnel. Additionally, DDC personnel located at this installation will be included in this program. Future initiatives will be to have standard verbiage added to contracts to ensure compliance with Executive Order 13101 and to partner with DDC personnel to create similar affirmative procurement programs at other DDC installations.

### **EPA Guideline Items Purchased**

The Environmental Protection Agency guideline items purchased at DDSP include paper and paper products, remanufactured toner cartridges, plastic envelopes, and wood pallets. With credit card purchasing, tracking items with recycled content was a difficult task. These problems have been addressed and will be tracked with the implementation of the DDSP Affirmative Procurement Program.

### **Partnering with other Federal, State, and Local Governments**

DDSP has a memorandum of understanding and partnership to collect wooden pallets with the following Federal entities: Bethesda Naval Hospital, Fort Meade, Lewisburg Prison, National Institutes of Health, and Allenwood Prison. This program is an environmental landmark initiative created by diverting this waste stream to a recycling program rather than taking them to a landfill or incinerator for disposal.

During FY03/FY04, approximately 571,396 pallets (9,999 tons) were marketed through DDSP's QRP. Of that amount approximately 198,169 scrap pallets (3,468 tons) were sent to a local mulcher. DDSP recycling staff was able to negotiate with the company for them to utilize their own equipment, labor, and vehicles to load, grind and transport the chips off the Installation at no cost to the government. Less than ½ of 1 percent of the scrap wood/pallets we receive at DDSP is taken to the landfill or incinerator. Within the timeline, approximately 4,537 pallets were put back into the system for re-use, saving the government \$49,862 for the cost of new pallets.

Currently DDSP and Fairview Township, the township in which the Installation is located, are participants in an on-going partnership in composting. The township brings collected yard waste and deposits the brush and leaves at a designated permitted composting area on site. The Installation also contributes leaves and brush and grass clippings to the pile. Personnel from the Installation manage and cultivate the compost mixture. When the final product is complete and ready for use, both the township and the Installation use the mulch/compost mixture around buildings and properties for mulching, soil supplement, and landscaping. During this past year, the compost area was open to residents of Fairview Township for their private use. Through these efforts, disposal costs are avoided in addition to the savings realized by decreasing the amount of compost/mulch purchased by both the DDSP and the township.

A partnership was developed between DDSP and the West Shore School District (WSSD), which encompasses 16 schools in two counties (York and Cumberland). Prior to this partnership, because of the small amounts they generated, the WSSD recycling program was very fractured (having to deliver items to many locations) and operating at a loss. By using DDSP as their "one-stop shopping" location, they have been able to reduce costs and take advantage of our processing facilities and contracts. The DDSP QRP took the initiative and is playing an active role in reducing the amount of reusable products that were going into landfills. By taking the steps of becoming a main processing facility for the West Shore School District, we have created a "win-win" situation; we are not only increasing the volume for DDSP, but we are reducing the costs associated with collecting and transporting the school district's recyclable materials. Commodities recycled include: co-mix (plastic milk and juice bottles, metal food containers, glass containers, etc); mixed paper; cardboard; scrap metal (old desks, cabinets, etc); book stock; and aluminum cans.

The volume processed by the DDSP QRP from WSSD for FY03 and FY04 was 328 tons. This same amount equals \$18,365 in cost savings to the school district and ultimately the tax payers. The WSSD transports all their recycling commodities to the Installation.

Assistance visits are conducted by DDSP representatives to other DOD facilities in order to exchange information, ideas and concerns. We are always looking for ways to improve our programs in order to be environmentally compliant and cost effective.

## **PROGRAMS TO ENHANCE AWARENESS**

Once a year as part of a summer educational curriculum, the DDSP School Age Child Care Program visits the recycling center where they see how paper or cardboard is baled and what happens to those items they put into their recycling containers. A question and answer period is incorporated into this field trip and environmentally friendly or recycled content items are handed to the children. Additionally, an annual promotional program to promote recycling awareness has

been established. During a specified time period, the DDSP Child Development Center - Kindergarten class collects aluminum cans from home and brings them to the recycling center.

Representatives from DDSP have been featured speakers at several nationally recognized conferences and seminars, such as: The National Recycling Coalition Exposition, Joint Services Conferences, DoD Reinvention Conferences and the Reinvention Revolution Conference. Additionally, during Earth Day week or America Recycles Day, the Recycling Program Manager or other Recycling Staff members visit various Senior Citizen Centers and local Elementary and Middle School to promote recycling awareness.

In order to enhance the awareness of recycling and affirmative procurement within the DDSP community, various displays are set up throughout the Installation. Drive-by bill boards located on the Installation are fitted with recycling information and are displayed for several weeks through out the year. Environmentally friendly or recycled content items are handed out to the employees which include: mugs with 100 percent post industrial recycled plastic, frisbees made from 100 percent recycled video cases, biodegradable pens made from corn products, pencils made from recycled denim or reclaimed U.S. currency, book covers from recycled paper, pocket calendars where the covers are made from recycled tires, bumper stickers, auto trash bags, recycling logo pins, golf tees, etc.

DDSP has many awards to its credit to include: two Vice President Gore's Hammer Awards; White House Closing the Circle Award; Pennsylvania Governor's Environmental Excellence Award; Honorable Mention-Environmental Security Award; and the first ever DLA Environmental Award.

The DDSP's commitment to solid waste reduction is an on-going initiative and the responsibility of every employee. We are continually looking for ways to improve and streamline the recycling program to ensure cost effectiveness while meeting pollution prevention guidelines. Our goal is to serve as an example to others regarding pollution prevention initiatives and for these efforts to be recognized and shared with others at both federal and local levels.