

Maxell Corporation Applies Full Cost Accounting to Environmental Efforts

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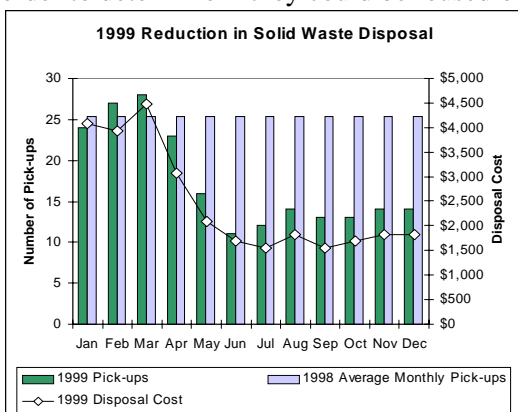
If you were driving east on Interstate 20 through Conyers, Georgia during the past year, you may have noticed a billboard promoting Maxell Corporation's local environmental efforts. Maxell has been an active participant in the Rockdale community, and 1999 proved to be a landmark year in environmental management at their Conyers facility. The year began with Maxell receiving ISO 14001 certification for their Environmental Management System (EMS) and finished with a full cost accounting study that reduced landfilled solid waste by nearly 50 percent.

The facility, which employs 175 people, makes VHS video cassettes and DDS data cartridges. Due to the nature of the products, solid waste was the most significant environmental impact at the facility. Since many previous efforts to reduce waste were limited by economics, full cost accounting was chosen as the vehicle for pursuing further reductions.

The project was led by Mike Roper, Internal Systems Superintendent at Maxell, and Matt Barcaskey of P²AD. Other Maxell personnel from the production, quality, and accounting departments were also involved. The process began with an assessment of waste generated at the facility. Then, the associated costs of the different types of wastes were systematically identified. The study estimated that the total waste-related cost, which included materials, overhead, and disposal, was over \$1 million.

An opportunity to make a quick impact was recognized early on in the process. An examination of billing records revealed that there was an average of 25.3 disposal pick-ups per month in 1998, but the various quantities of each material that went into the dumpsters were unknown, and physical inspection of the disposal containers revealed that many of the waste materials were reusable. Also, dumpster pick-ups were scheduled to occur at regular intervals, resulting in the dumpsters being emptied before they were full.

Initially, wastes were identified by type of material in order to determine if they could be reused or recycled.



Several materials are now reused in some manner including plastic corner guards for pallets and plastic cores from packaging that are



returned to the suppliers. Recycled materials such as reground waste from the molding operations, corrugated cardboard, paper, aluminum, pallets, and other plastics totaled 375 tons and brought in revenues of over \$13,000 for 1999.

After observing the system of material collection, several changes were made to increase the reuse of materials and decrease disposal costs. Receptacles were strategically located to make it easier for the employees to segregate materials. Unnecessary dumpster hauls were eliminated by placing disposal on an on-call basis. And, finally, employee awareness was increased through training and display of environmental information. In the second half of 1999, the number of pick-ups was reduced to an average of 13 per month, which will save \$25,000 annually. Furthermore, each roundtrip between the facility and the landfill is 12 miles, so the initial reduction in pick-ups correlates to an elimination of 1,700 miles driven by the dump trucks per year.

According to the study, the most significant waste-related cost was the lost raw material value of magnetic tape. Several causes of generating magnetic tape waste in the process were identified. Each category of magnetic tape waste was then prioritized by the total cost. Now, continuing efforts are focused on source reduction of magnetic tape waste. This approach helped to target the 20 percent of the causes that resulted in 80 percent of the waste.

Gains as a result of pollution prevention are expected to continue into 2000. "Full cost accounting and environmental management have combined to provide positive results at Maxell Corporation of America," explains Mike Roper. "Maxell's involvement with P²AD and the resulting full cost accounting project were brought about by pollution prevention initiatives realized through the ISO 14000 based EMS. The result is better management of environmental issues using sound business practices. Combining business issues, social responsibility and EMS requirements in this manner provides a real incentive to continue using full cost accounting results as a means of ensuring continual improvement."