Recycling Revenues Reinvested for Remarkable Results

Go Full Circle

June 22, 2010

Ralph Wrons
Pollution Prevention Program
Sandia National Laboratories, NM

Redline, Reuse, Recycle, Buy Green

Sandia is a multi-program laboratory operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation. The United States government retains certain rights in this software.

Pollution Prevention

Vision

- The P2 program promotes and integrates environmental sustainability into all Sandia operations.
  - To promote and integrate environmental sustainability ......, the P2 program will seek to ........ achieve 100 percent recycling of all recyclable commodities

Authorizing Legislation

Public Law 103-329 (FY95) Section 608
- In addition to funds provided in this or any other Act, all Federal agencies are authorized to receive and use funds resulting from the sale of materials recovered through recycling or waste prevention programs. Such funds shall be available until expended for the following purposes:
  - (1) Acquisition, waste reduction and prevention and recycling programs as described in Executive Order 12873 (October 20, 1993), including any such programs adopted prior to the effective date of the Executive Order.
  - (2) Other Federal agency environmental management programs, including but not limited to, the development and implementation of hazardous waste management and pollution prevention programs.
  - (3) Other employee programs as authorized by law or as deemed appropriate by the head of the Federal agency.

Recycling Performance

Recycling Revenues

<table>
<thead>
<tr>
<th></th>
<th>First 8 months</th>
<th>Full year</th>
<th>Net (of KAFB proceeds)</th>
<th>Paper &amp; Scrap Metal</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY10</td>
<td>$128,176</td>
<td></td>
<td></td>
<td>86%</td>
</tr>
<tr>
<td>FY09</td>
<td>$121,773</td>
<td>$162,276</td>
<td>$146,469</td>
<td>79%</td>
</tr>
<tr>
<td>FY08</td>
<td>$177,393</td>
<td>$232,063</td>
<td>$190,032</td>
<td>93%</td>
</tr>
<tr>
<td>FY07</td>
<td>$123,399</td>
<td>$169,784</td>
<td>$141,796</td>
<td>73%</td>
</tr>
<tr>
<td>FY06</td>
<td>$108,374</td>
<td>$150,054</td>
<td>$134,247</td>
<td>84%</td>
</tr>
</tbody>
</table>

What’s needed

What’s needed for good revenues
- Identify the markets and the vendors
- Provide the containers and the infrastructure
  - Convenience, signage
- Minimize or eliminate contamination
- Full shipments
  - bales
What's needed

Example of purchases

- Shrink wrap machines & PM
- Foam densifier equipment
- Roll-offs and tilt hoppers
- Dumpsters
- Bins (battery recycling, composting)
- Signage
- Occasionally
  - Pallets (when exceeding our salvage)
  - Gaylord boxes (recently solicited suppliers)

Example of purchases

“The P2 Tent”

- Staging area for electronics prior to recycle
- Installed June 2007
New Tent

- Also houses other P2 initiatives:
  - Toner Exchange
  - Demolition waste recycling, i.e., carpet and ceiling tile
  - Binder Exchange
  - Various plastics

Services paid

- Carpet tile shipment
- Plastics shipment
- Composting of Cafeteria food waste
- Battery recycling
- Repair of the baler computer controls
- Initial concrete and asphalt debris crushing
- Painting of re-used dumpsters
- American Metals Market subscription

Recycling Support Field Tech

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Recycled/Tons/Recyc</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNL Cardboard</td>
<td>cardboard</td>
<td>40</td>
</tr>
<tr>
<td>SNL Mixed Paper</td>
<td>mixed paper</td>
<td>0</td>
</tr>
<tr>
<td>SNL White Paper, Aluminum and Plastics</td>
<td>white paper</td>
<td>0</td>
</tr>
<tr>
<td>SNL Trash</td>
<td>trash</td>
<td>40</td>
</tr>
<tr>
<td>C&amp;D Recycling Center</td>
<td>C&amp;D recycling</td>
<td>0</td>
</tr>
<tr>
<td>Wood Roll Off Deliveries</td>
<td>wood</td>
<td>3</td>
</tr>
<tr>
<td>Scrap Metal Deliveries</td>
<td>scrap metal</td>
<td>0</td>
</tr>
<tr>
<td>Paper Recycling Support</td>
<td>paper recycling</td>
<td>0</td>
</tr>
<tr>
<td>White Paper and Mixed Paper Totes Box Truck Route</td>
<td>white paper</td>
<td>0</td>
</tr>
<tr>
<td>Used Toner Collection and Segregation Support</td>
<td>used toner</td>
<td>1</td>
</tr>
<tr>
<td>New Recycling Bin Deliveries (on call)</td>
<td>new recycling bins</td>
<td>1</td>
</tr>
<tr>
<td>Foam Collection from Mixed Paper Dumpsters</td>
<td>foam</td>
<td>40</td>
</tr>
<tr>
<td>Foam Compaction with Equipment at SWTF</td>
<td>foam compaction</td>
<td>0</td>
</tr>
<tr>
<td>Shrink Wrap Baling Support</td>
<td>shrink wrap</td>
<td>0</td>
</tr>
<tr>
<td>Paper Recycling Support</td>
<td>paper recycling</td>
<td>1</td>
</tr>
</tbody>
</table>

Next steps

- Design for improvements to SWTF
- Lease or purchase dedicated vehicle
- Get data and feedback from recycling field tech

Seeking continuous improvement