Aerospace Company Pursues Zero Waste to Landfill

**Challenge**
A global aerospace company diverted forty-three percent of all municipal waste generated on site by their many facilities. Committed to business practices that support a sustainable global environment, the company established a goal to reach a solid waste diversion rate of seventy-five percent or more at all locations in the United States. To reach this goal at one of its manufacturing facilities, the company requested assistance from the New York State Pollution Prevention Institute (NYSP2I).

In addition to the corporate waste diversion rate goal of seventy-five percent, the facility set a further goal to reach ninety percent waste to landfill diversion as defined by the United States Green Building Council Inc.'s TRUE zero waste certification program. The focus of this project was two-fold; first, to identify facility-specific waste reduction best practices and solutions, and second, to develop a facility-specific implementation strategy and roadmap to help the site reach its corporate goal and the TRUE certification diversion threshold.

**Solution**
NYSP2I conducted a review and high-level analysis of current waste generation and handling activities and data from the facility. NYSP2I characterized the company’s waste flows and assisted with evaluating these findings relative to the corporate waste standard (75% diversion from landfill) as well as the TRUE zero waste to landfill certification threshold (90% diversion from landfill).

**Results**
Increasing the diversion of food waste, coffee waste, and water-jet garnet sludge could increase solid waste diversion by as much as 38%.

Implementing diversion strategies such as the recycling of PPE, the reuse of wooden shipping containers, and the replacement of single-use plastics with reusable ware in the cafeteria.
Solutions
NYSP2I took several actions to develop a zero waste to landfill implementation strategy for this facility in Western NY. These actions included the following:

- Analyzed the company’s waste management policies and procedures at the corporate and site-specific levels.
- Conducted a review and high-level analysis of current waste generation and handling activities and data from the Western NY facility.
- Characterized the company’s waste flows and assisted in evaluating conformance to the corporate waste standard (seventy-five percent diversion from landfill) as well as the TRUE zero waste to landfill certification requirements (ninety percent diversion from landfill).

Results
The work performed by NYSP2I led to the development of a sustainable waste reduction plan with a focus on zero waste to landfill and a two-year roadmap specifically tailored to the goals at the Western NY manufacturing facility. To support the company’s implementation efforts, NYSP2I also provided the following:

- Established a waste diversion baseline and template for comparing and assessing future performance.
- Completed a waste performance gap analysis indicating current performance relative to the corporate waste standard and the TRUE certification program requirements.
- Identified specific opportunities for increasing waste diversion at this Western NY facility:
  - Increasing the diversion of food waste, coffee waste, and water-jet garnet sludge could increase solid waste diversion by as much as 38 percent.
  - Implementing additional diversion strategies such as the recycling of personal protective equipment (PPE), as well as source reduction strategies such as the reuse of wooden shipping containers, and the replacement of single-use plastics with reusable ware in the cafeteria may improve the diversion rate to nearly ninety percent within a two-year period.

<table>
<thead>
<tr>
<th>Waste Type</th>
<th>% of “Landfill Material”</th>
<th>% of Total Waste</th>
<th>Potential Waste Pathway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Waste (estimated)</td>
<td>29%</td>
<td>13.2%</td>
<td>Compost</td>
</tr>
<tr>
<td>Coffee Waste (estimated)</td>
<td>9.4%</td>
<td>4.2%</td>
<td>Compost</td>
</tr>
<tr>
<td>Garnet Sludge (estimated)</td>
<td>7.2%</td>
<td>3.3%</td>
<td>Recycle</td>
</tr>
<tr>
<td>Remaining “Landfill Material” (estimated)</td>
<td>54.4%</td>
<td>24.7%</td>
<td>Landfill</td>
</tr>
<tr>
<td>RCRA Non-Hazardous Waste</td>
<td>N/A</td>
<td>0.8%</td>
<td>Landfill</td>
</tr>
</tbody>
</table>

Total Waste to Landfill: 100%
Total Diversion (estimated): 75%

Target Diversion Rate
• Identified onsite waste management improvements such as appropriately sized containers and clear, effective container labeling.
• Identified potential suppliers and vendors positioned to help the company improve its diversion of significant waste streams such as water-jet garnet sludge, anti-static bags, PPE, and organic waste.