



Suppliers Partnership for the Environment (SP)



CHRYSLER

Zero Waste To Landfill



Zero Waste To Landfill

- The Chrysler Group Headquarters and Technology Center (CTC) achieved “Zero Waste to Landfill” status in 2010 for ***both non-regulated and regulated waste streams***.
 - This achievement is an additional benefit of the initiative to apply World Class Manufacturing (WCM) principles and practices within a service organization.
- The CTC Environmental Pillar Team took on the challenge to eliminate CTC’s wastes from landfills and demonstrate its continued commitment toward environmental stewardship.



Chrysler HQ and Tech Center





Ambient Lighting at CTC





Blue Heron at Chrysler Campus



*These birds are
not actors!*



Facts About the Chrysler Campus

- **Function and Purpose**
 - Product Design
 - Engineering / Scientific Labs
 - Manufacturing / Paint & Pilot Operations
 - Procurement & Supply
 - Finance, Human Resources, Sales & Marketing, etc.
- **Building Overview**
 - 5.4 million square feet gross (502,000 m²)
 - 13,500 people
- **Other Amenities**
 - Hiking paths, athletic fields, nature preserve
 - 15,410 parking spaces
 - ***Total site 504 acres***



Special Challenges

- **Dining & Other Group Assembly Areas**
 - Main Dining & private dining rooms (1,260 people)
 - Headquarters Dining (750 people)
 - Other node food serving areas
 - Coffee bar (Tech Plaza)
 - Vending machines (all nodes)
 - Mobile catering (Process Court – breakfast only)
- **Other Amenities**
 - Sundry shops
 - Barber shops & manicurist
 - Health Activity Center
 - Conference Center
 - Education Center



Zero Waste To Landfill

- Members of the facility's Environmental Pillar Team partnered with NMS (Formerly Forest Island Recycling, Inc.) for **non-regulated** wastes, and The Environmental Quality Company (EQ) regarding **regulated** wastes.
- Every waste stream generated by CTC's tenant populations were evaluated to determine if one of the three R's (Reduce, Reuse, Recycle) could be applied before turning to alternate control methods.



Zero Waste To Landfill

- ***Non-regulated*** wastes include paper, cardboard, pallets, tires, scrap metal & wood, plastic bottles and general refuse.
- ***Regulated*** waste streams include fuels, oils, paint, solvents, sealers, adhesives, wet/dry cell batteries, process sludge and numerous other chemical wastes that are controlled under State and Federal government requirements.
- The waste stream audit determined that much of CTC's wastes were reusable and/or recyclable.



Zero Waste To Landfill

- CTC tenants start the process with a first sort of their wastes within their suites and labs.
- Recyclables are then collected and sent to various recycling programs for processing.
 - The remaining co-mingled **non-regulated** waste streams are sent off-site for secondary sorting to reclaim any additional recyclables and reduce the final volume for energy generation.
- **Regulated** waste streams are segregated and sorted for recycling or sent to fuel blending programs for energy recovery.
- The remaining balance of both **non-regulated** and **regulated** waste streams go for energy generation.
- ***This program demonstrates Chrysler's commitment to manage its operations in an environmentally responsible manner for the betterment of the company and the community.***





Zero Waste To Landfill



**CTC
Waste
Streams**



**Reuse/
Recycle**



**Fuel
Blending**



**Power
Generation**

Zero Waste To Landfill

Program Timeline			2010				
Program(s)	Task	Responsible	Aug	Sept	Oct	Nov	Dec
All Wastes	CTC Facilities Definition of "Zero Waste to Landfill"	CTC World Class Services (WCS) Leadership Team	15				
Trash (non-regulated waste) and Regulated Waste	List and Volumes	CTC - ECP Team	27				
Trash (non-regulated waste) and Regulated Waste	Current Disposal Method/Site	Vendors		3			
Regulated Waste	Future Options (Incineration and/or Waste to Energy)	CTC - ECP Team, Vendor		10			
Regulated Waste	Cost of Viable Future Options	CTC - ECP Team, Vendor		10			
Regulated Waste	Obtain Buy-in/Approval	Facilities Management Team		10			
Trash (non-regulated waste)	Transition to New Vendor	CTC - Bldg. Grounds & Housekeeping Team, Vendor		13			
Trash (non-regulated waste)	Implementation	CTC - Bldg. Grounds & Housekeeping Team, Vendor		17			
Medical Waste	Current Disposal Method & Options	Vendor			8		
Regulated Waste	Obtain Waste Approvals	CTC - ECP Team, Vendor				29	
Regulated & Medical Waste	Implementation	CTC - ECP Team, Vendor					22

Zero Waste To Landfill

Batteries - Alkaline	Resmelt	Drum	5,550.00	Pounds
Batteries - Lead Acid (Wet)	Recycle	Pallet	60,740.00	Pounds
Batteries - Lithium	Recycle	Crate	1,600.00	Pounds
Empty Drums - Plastic	Recycle	Drum	1,540.00	Pounds
Empty Drums - Steel	Recycle	Drum	7,360.00	Pounds
Gasoline Rags & Pads	Incineration	Drum	3,100.00	Pounds
Hydro-Jet Sand	Incineration	Tanker	14,525.00	Pounds
Lab Pack	Incineration	Drum	8,933.00	Pounds
Lamps - Compact Fluorescent	Recycle	Crate	81.00	Pounds
Lamps - Fluorescent Tubes - 5 ft.	Recycle	Crate	29.00	Pounds
Lamps - Fluorescent Tubes - 4ft.	Recycle	Crate	47,918.00	Pounds
Lamps - HID	Recycle	Crate	346.00	Pounds
Lamps - Incandescent	Recycle	Crate	659.00	Pounds
Lamps - Broken (Hazardous Waste)	Recycle	Drum	75.00	Pounds
Medical Waste	Incineration	Crate	430.00	Pounds
Lacquer Thinner Rags	Incineration	Drum	6,800.00	Pounds
Oily Pads & Rags	Incineration	Drum	19,200.00	Pounds
Scrap Metal (Ferrous/Non-Ferrous)	Recycle	Roll-off	6,051,954.00	Pounds
TOTAL			6,230,840.00	Pounds

Environmentally Sound

Alternative Process Energy Source

Energy Production



Zero Waste To Landfill

Car Wash Sludge	Incineration	Tanker	5,258.00	Gallons
Diesel Fuel	Fuel Blending	Drum	825.00	Gallons
Gasoline & Solvents	Fuel Blending	Drum	485.00	Gallons
Gasoline & Water	Recycle	Drum	1,808.00	Gallons
Kitchen Grease	Reuse	Drum	1,705.00	Gallons
Lab Waste System Sludge	Incineration	Tanker	450.00	Gallons
Paint - Latex	Fuel Blending	Drum	55.00	Gallons
Paint & Solvent	Fuel Blending	Drum	890.00	Gallons
Sealers	Fuel Blending	Drum	165.00	Gallons
Sodium Hydroxide	Recycle	Drum	100.00	Gallons
Used Glycol & Water	Recycle	Tanker	5,765.00	Gallons
Used Oil & Water	Recycle	Tanker	37,508.00	Gallons
Used Oil - Refrigerant	Recycle	Drum	465.00	Gallons
TOTAL			55,479.00	Gallons

Environmentally Sound

Alternative Process Energy Source

Energy Production



Zero Waste To Landfill

Cardboard	Recycle	Roll-off	86.51	Tons
Gloves	Reuse/Recycle	Crate	0.17	Tons
Office Paper	Recycle	Roll-off	69.65	Tons
Plastic Bottles	Recycle	Crate	9.26	Tons
Trash (General Refuse)	Recycle	Roll-off	108.97	Tons
Trash (General Refuse)	Incineration	Roll-off	1,253.16	Tons
Wood (Pallets)	Incineration	Roll-off	0.57	Tons
Wood (Scrap)	Incineration	Roll-off	335.56	Tons
TOTAL			1,863.85	Tons
Tires	Recycle	Crate	1,157.00	Each
Toner Cartridges	Recycle	Crate	6,317.00	Each
TOTAL			7,474.00	Each

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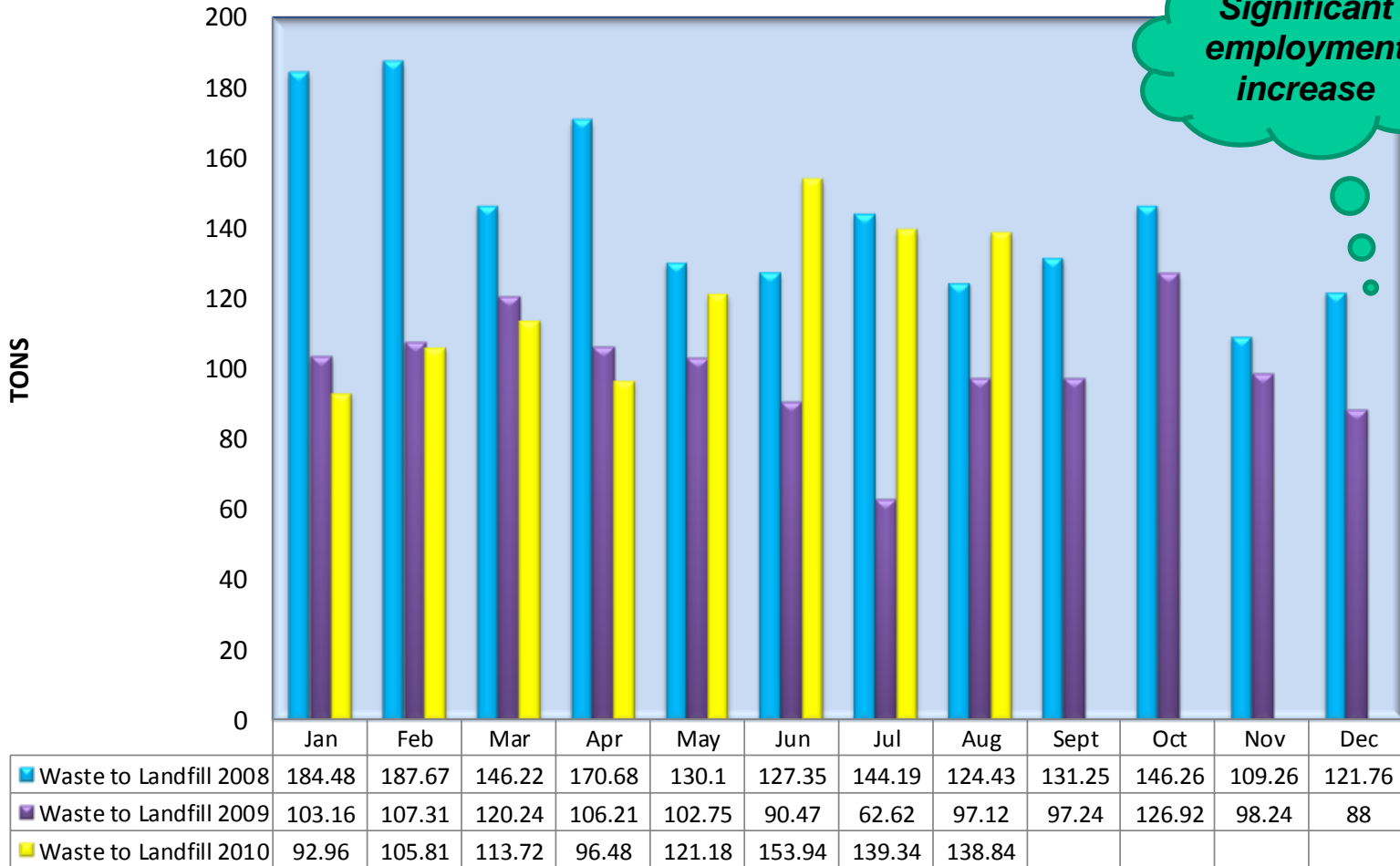
Alternative Process Energy Source

Energy Production



Zero Waste To Landfill

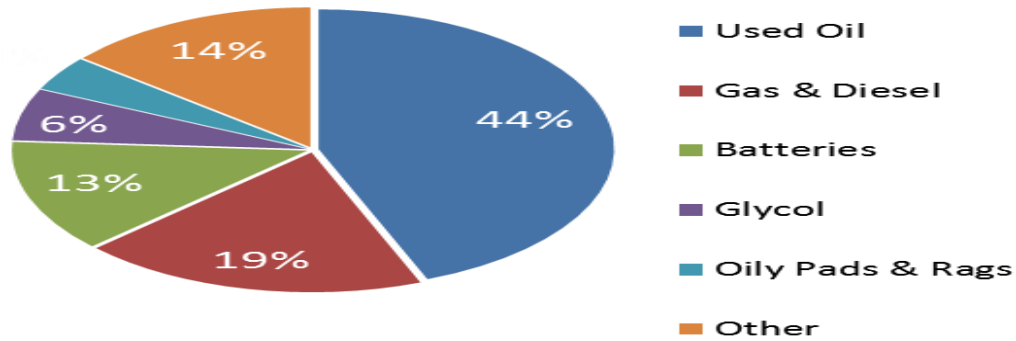
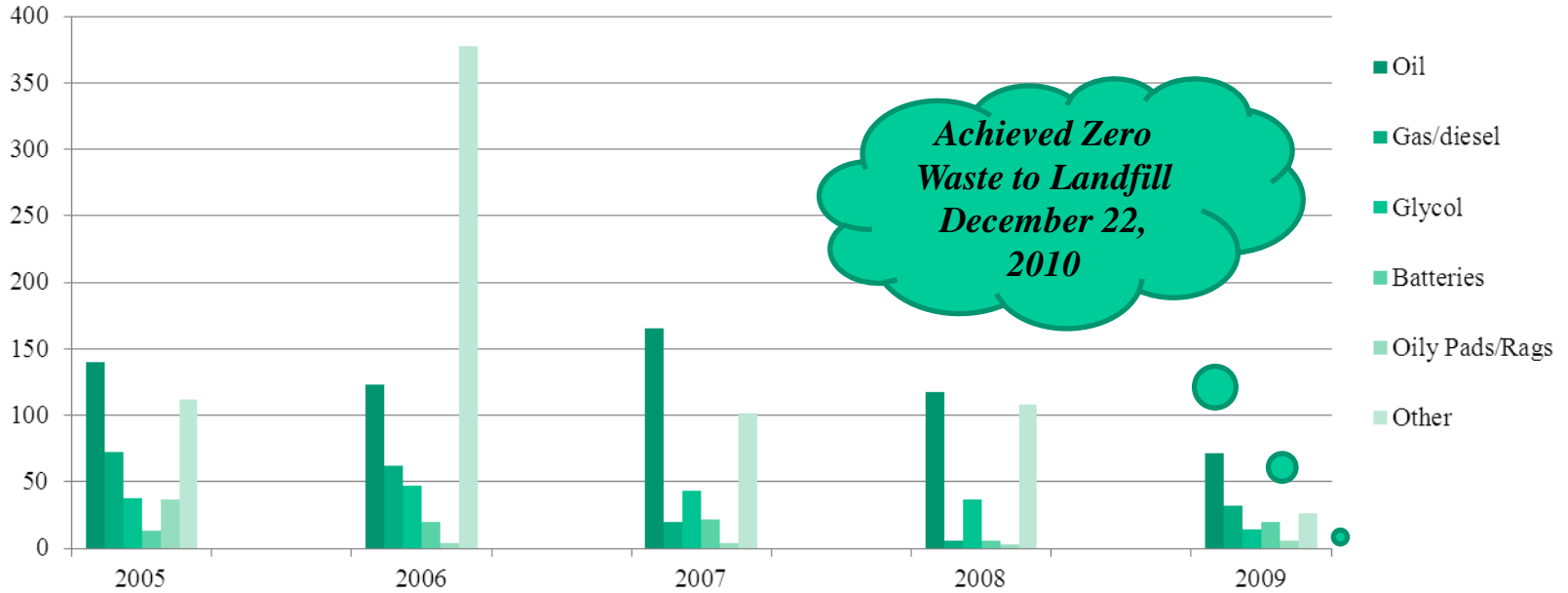
Trash To Landfill Reduction



Significant employment increase



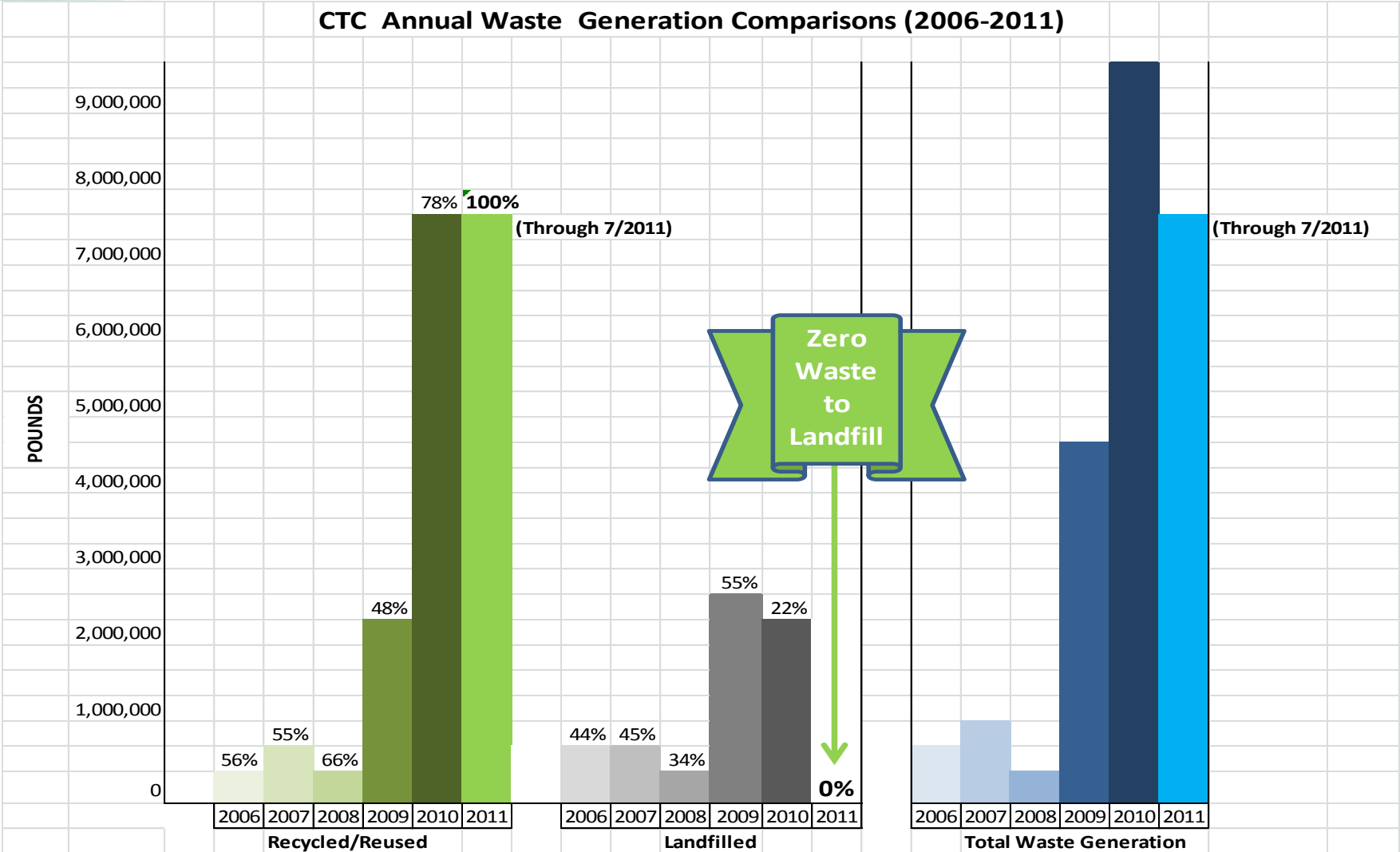
Zero Regulated Waste To Landfill





Zero Waste To Landfill

CTC Annual Waste Generation Comparisons (2006-2011)





Zero Waste To Landfill

