

Pollution Prevention At  
OETIKER  
By  
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# OETIKER, INC

- Plants in 16 Countries
- Manufacturer of Clamps, Rings & Couplers
- Marlette, Michigan
  - 250,000,000
    - Automotive
    - Marine
    - Other
- Two Plants
  - Manufacturing
  - Washing & Packaging

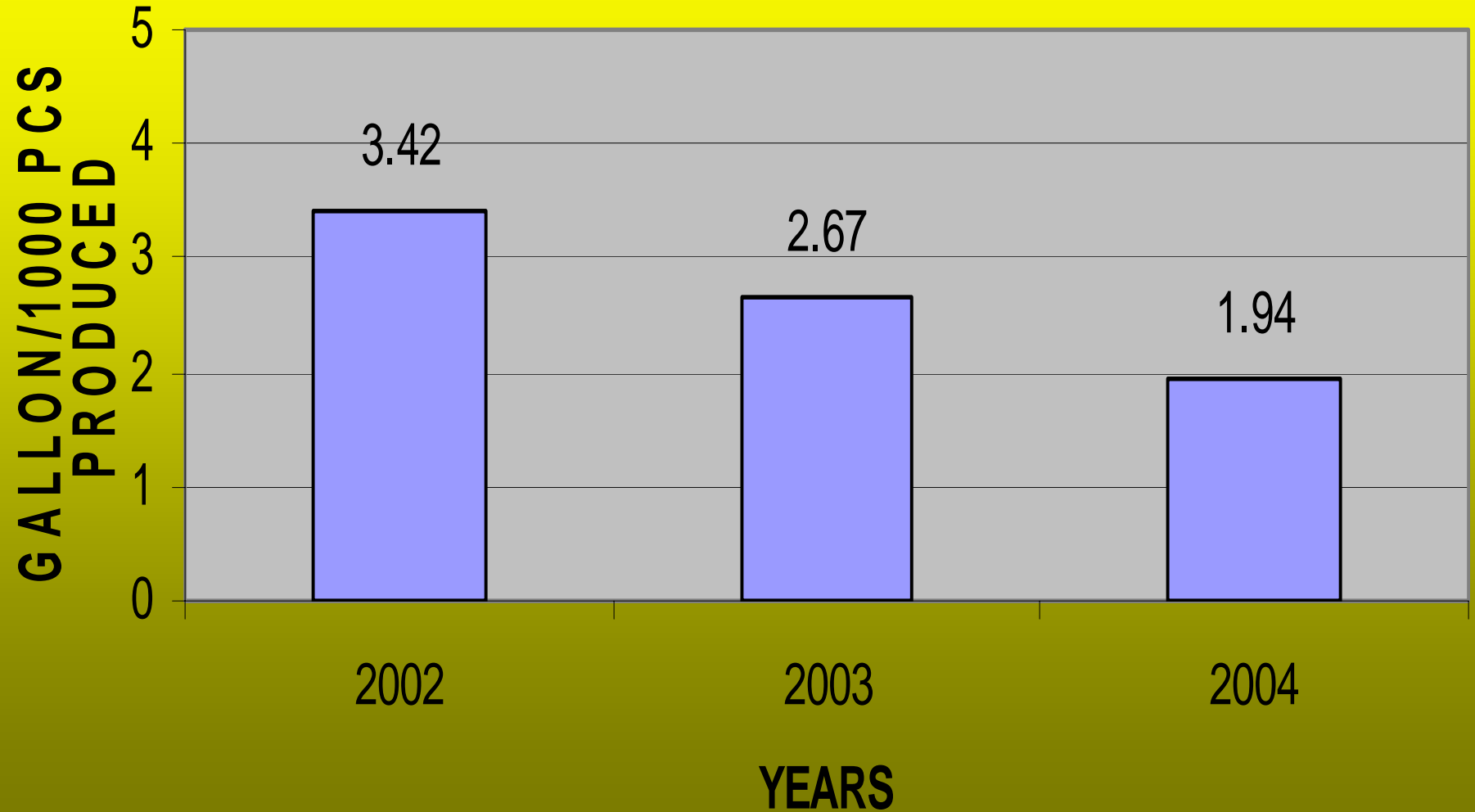
# Objectives & Targets

<b><u>2002 – 2003</u></b>	<b>Target</b>	<b>Actual</b>
– Reduce Solid Waste	10%	16%
– Reduce Energy Usage	10%	26%
– Reduce Liquid Waste	15%	28%
– Reduce Air Emissions	5%	02%
– Reduce Noise Emissions	5%	02%

# Minimize Water Usage

- Washer at Packaging Plant
  - Reuse of Soapy Water in Tank #1
    - Water -27%
    - Soap -46%
  - Improved Efficiency of the RO Unit
- Oil Reduction Program
- Reuse of Mop Water at MFG Plant
  - Recovery System

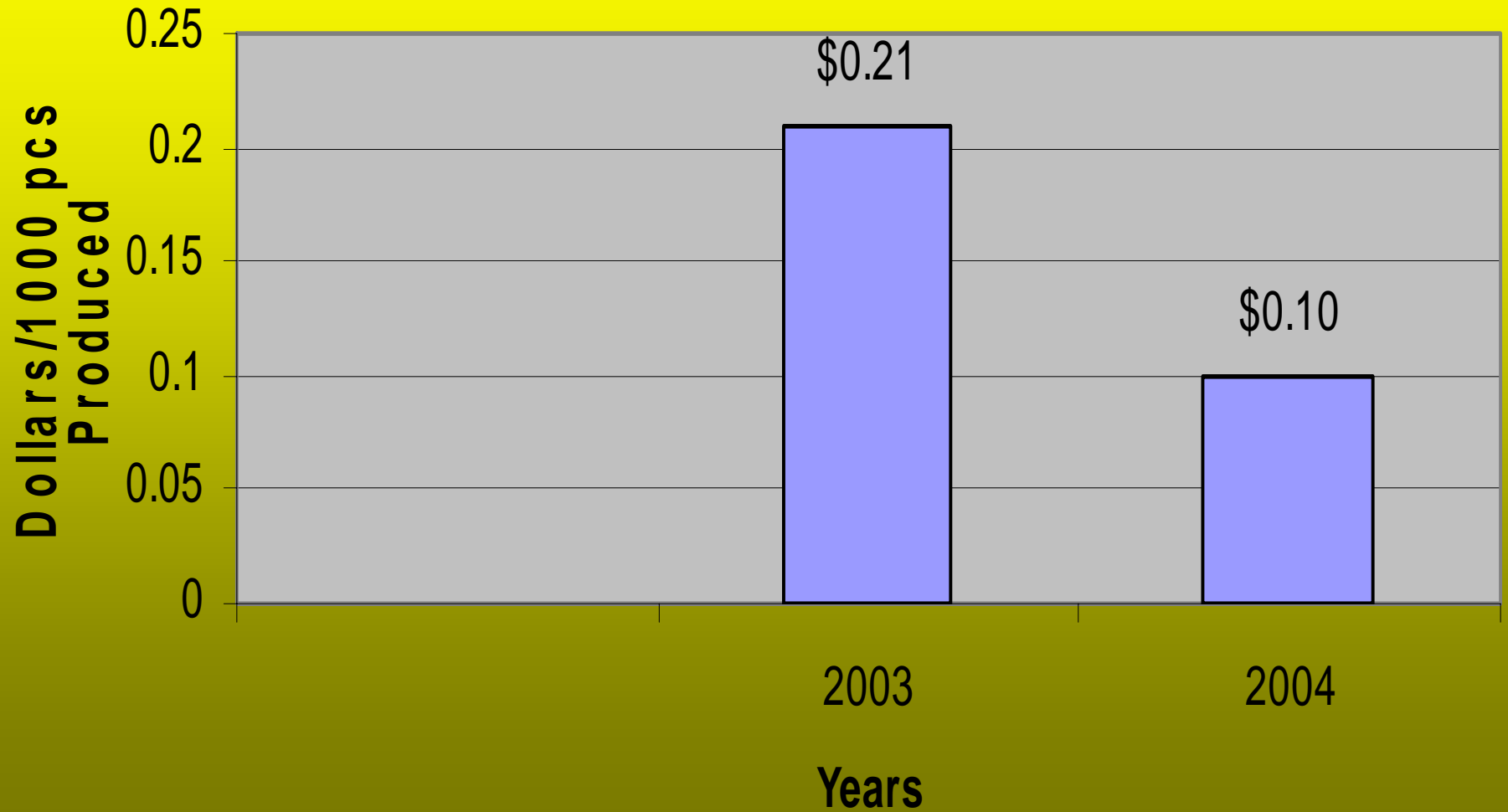
# TOTAL WATER USAGE



# Minimize Liquid Waste

- Oil Reduction Program
- Washer at Packaging Plant
  - Reuse of Soapy Water in Tank #1
  - Improved Efficiency of the RO Unit
- Reuse of Mop Water
  - Recovery System
- Oil/Water Separator for Air Compressors

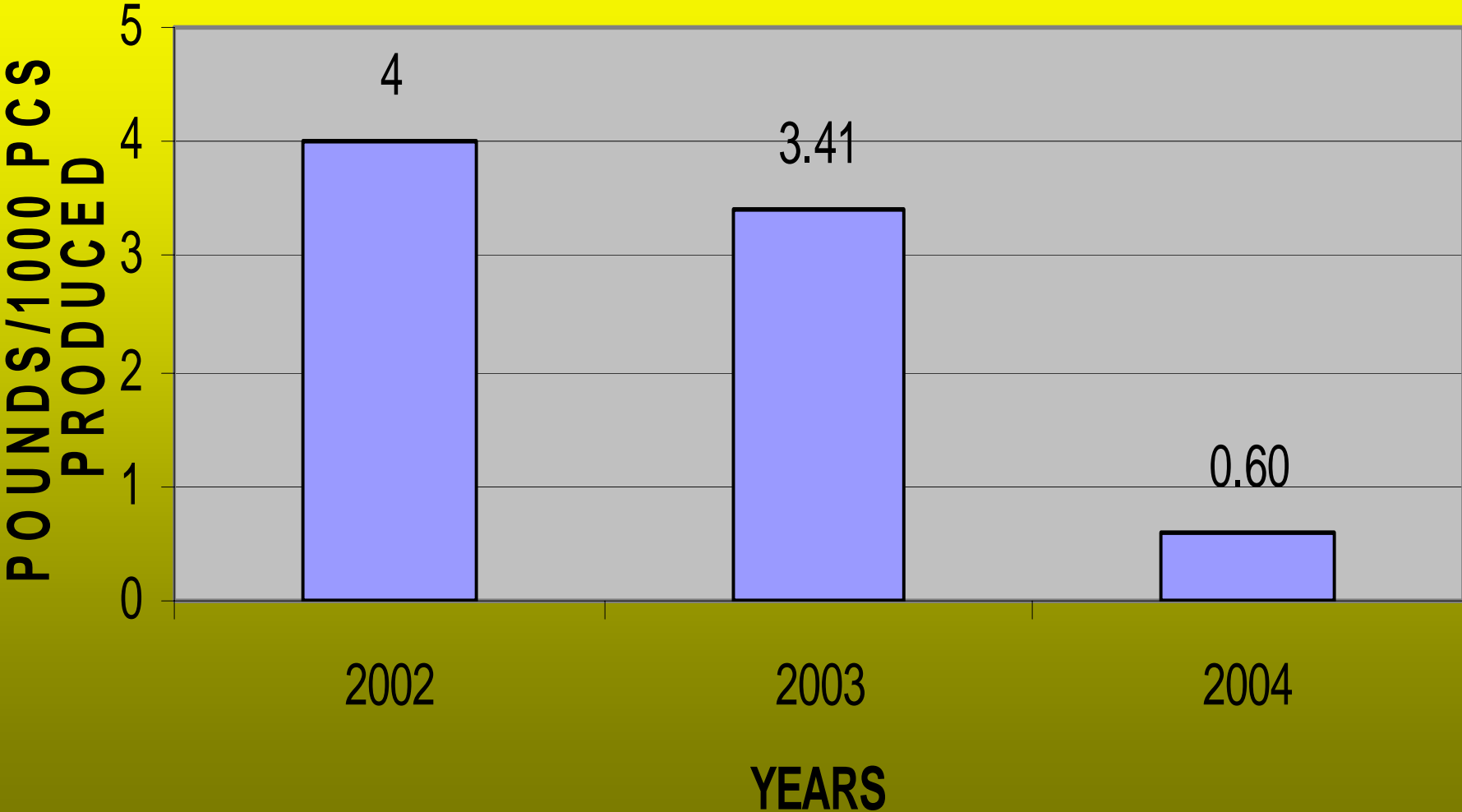
# Liquid Waste Hauling Expense



# Minimize Solid Waste

- Recycle Cardboard
  - 105,638 in 13,817 to Waste
- Recycle Pallets
  - 65,520 in 0 to Waste
- Reuse Copier Paper
- Returnable Containers
- Solid Waste Make Up – 2003 – 399 Cubic Yards
  - Plastic, Rolled Ribbon, Styrofoam, metal, glass, paper, cardboard, trash, batteries, stainless steel, brass, & aluminum
- Solid Waste Make Up – 2004 – 84 Cubic Yards
  - Plastic, Rolled Ribbon, Styrofoam, glass, paper, cardboard, & trash
- Solid Waste Make Up – 2005
  - Plastic, paper, cardboard, & trash

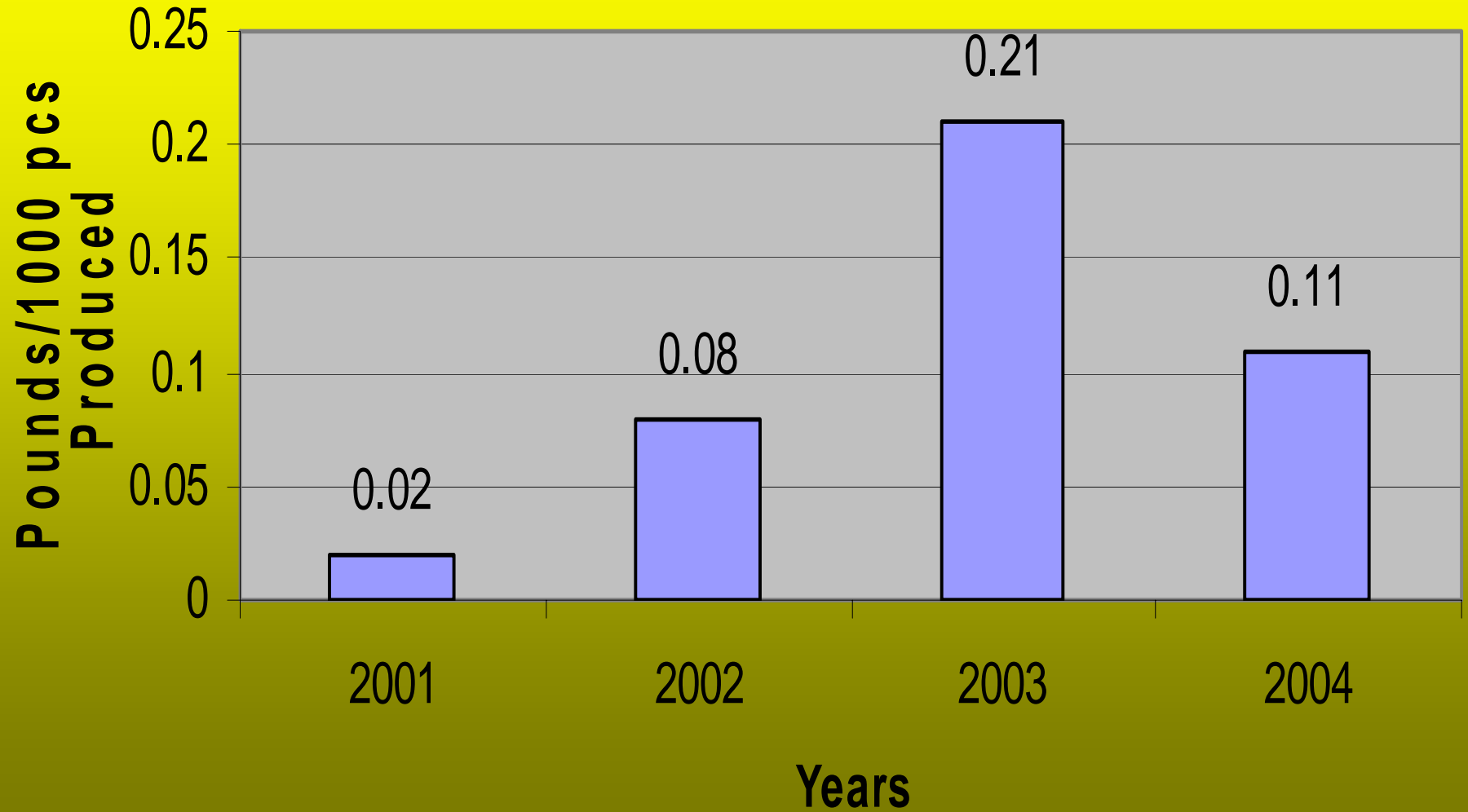
# SOLID WASTE GENERATED



# Recycle Program

- Recycle Cardboard
  - 105,638 in 13,817 to Waste - 2004
- Recycle Pallets
  - 65,520 in 0 to Waste - 2004
- Other Recycled Items
  - Plastic, Plastic Wrap, Plastic Bags, Rolled Ribbon, Styrofoam, Metal, Glass, Paper, Batteries, Stainless Steel, Z.P. Steel, Used Oil, Aluminum & Brass

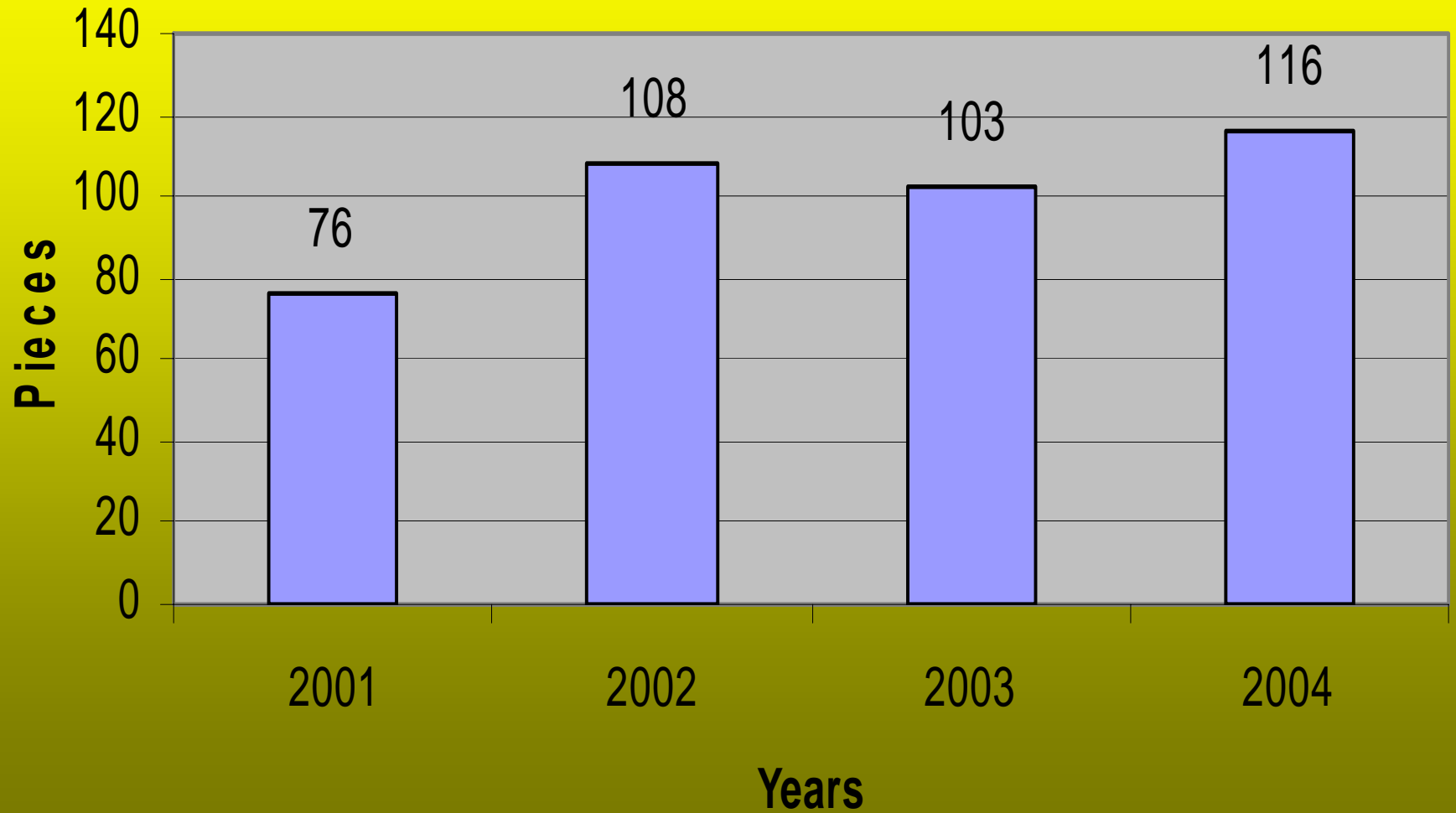
# Recycling



# Minimize Energy Usage

- UPS Conveyor Modification
- Install New Air Compressor
- Replacement of Equipment
- Improvements to Washer Drying System
- Install Photocell for Parking Lots

# Pieces Per KWH



# Minimize Air Emissions

- Reduce usage of Aerosol cans containing MI HAPs
- Install Dust Collector in Tool Room
- Study Freight Carrier Issues

# Minimize Noise Emissions

- Modify Machine Enclosures = 5%
- Install Noise Attenuator in HVAC Duct = 5%

# Objectives & Targets

- **2004 – 2005** **Target**
  - Reduce Solid Waste 5%
  - Reduce Energy Usage 5%
  - Reduce Liquid Waste 10%
  - Reduce Air Emissions 5%
  - Reduce Noise Emissions 5%

# Reasons for Success

- Objectives & Targets are Set by EMS
  - Posted
  - Progress Posted
- Teams Formed
  - For Each Objective
- Communication
  - Signs
  - Verbal
  - Charts
- Share Success With Outsiders