



# Waste Reduction and Cost Cutting

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# Hospitals for a Healthy Environment

- H2E
- Joint project between
  - USEPA
  - American Hospital Association
  - American Nursing Association
  - Healthcare Without Harm



# Hospitals for a Healthy Environment

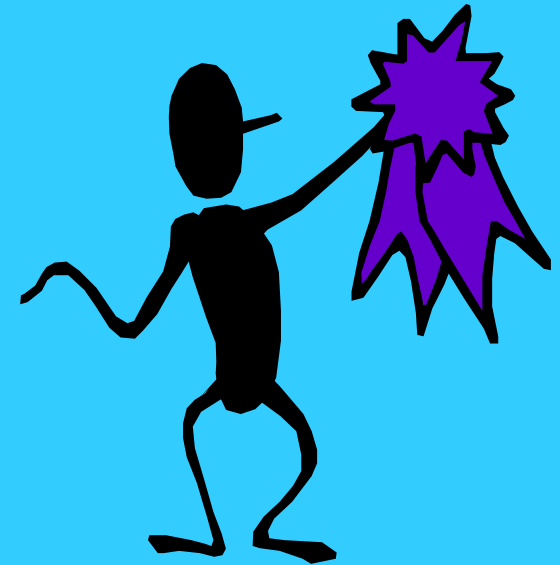
- MOU between EPA and AHA:
  - Virtually eliminate mercury by 2005
  - Reduce waste by 33% by 2005 and by 50% by 2010
  - Further identify other hazardous waste and PBT pollutants for pollution prevention



# Hospitals for a Healthy Environment

- AWARD PROGRAMS

- Partner Recognition
- Partners for Change
- Making Medicine Mercury Free
- Champions for Change
- Environmental Leadership



# Self Assessment

- Solid Waste
  - Regulated Medical Waste (Red Bag)
  - Hazardous Waste
  - Universal Waste
- 
- Where is it and how much???



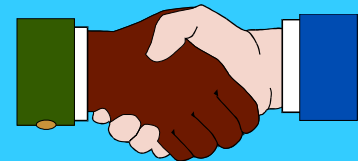
# Self Assessment

- Contact the appropriate people / departments
- Inspections / walkthroughs
- H2E Self assessment form (available on line)



# Appropriate Contacts

- Solid Waste Management:
  - Building services
- Medical waste (RMW or red bag)
  - Building services
- Hazardous (RCRA) waste
  - Facilities (Industrial Hygiene)
  - Engineering



# Appropriate Contacts

- Radioactive Waste
  - Radiology, R.O.
- Cafeteria Waste (cooking grease)
- Getting these people together is very important- Self assessment form is helpful here



# Self Assessment Form

- Available on [www.h2e-online.org](http://www.h2e-online.org)

# Solid Waste Management

- Reduced solid waste by 800,000 lbs. In 2001
- Increased recycling of materials
- Reuse- construction debris
- Removing Garbage receptacles



# Regulated Medical Waste

- Red Bag, Biohazardous, medical waste
- Since 1993 red bag waste has gone from 1 million pounds per year to 500, 000 pounds per year (50%) reduction
  - Training
  - Removing recepticals
  - Autoclaving



# Mercury

- Do an inventory:
  - Use checklists
  - Committees
  - Site visits
- Purchasing
  - Policy



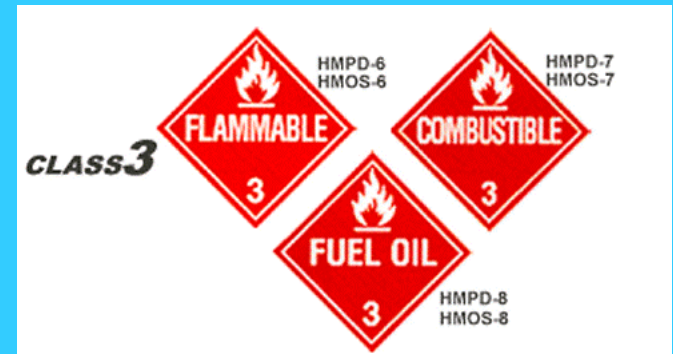
# Hazardous Waste

- RCRA waste, State regulated
- Generator status (RCRA Waste)
  - LQG generate or store >1000 Kg (2200 lbs.) in any one month of the calendar year
  - SQG <1000 Kg (2200 lbs.)
  - LQG has more regulatory requirements
  - HH is an LQG



# Hazardous Waste

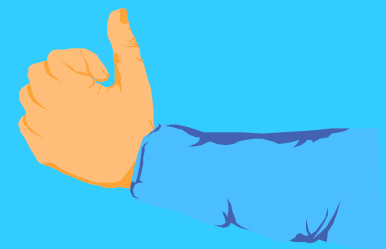
- Over 20 different waste streams
  - Flammable liquids (labs)
  - Corrosives (labs, radiology)
  - Waste paint (Engineering)
  - Mercury (small amounts)



- Identify largest waste stream and implement plan

# Hazardous Waste

- Flammable liquids make up nearly 65% of our total waste
- Recycling with fractional distillation (purer product)- a waste minimization plan
- 2004 goal- stay below 10,000 lbs. Hazardous waste and eventually below SQG status

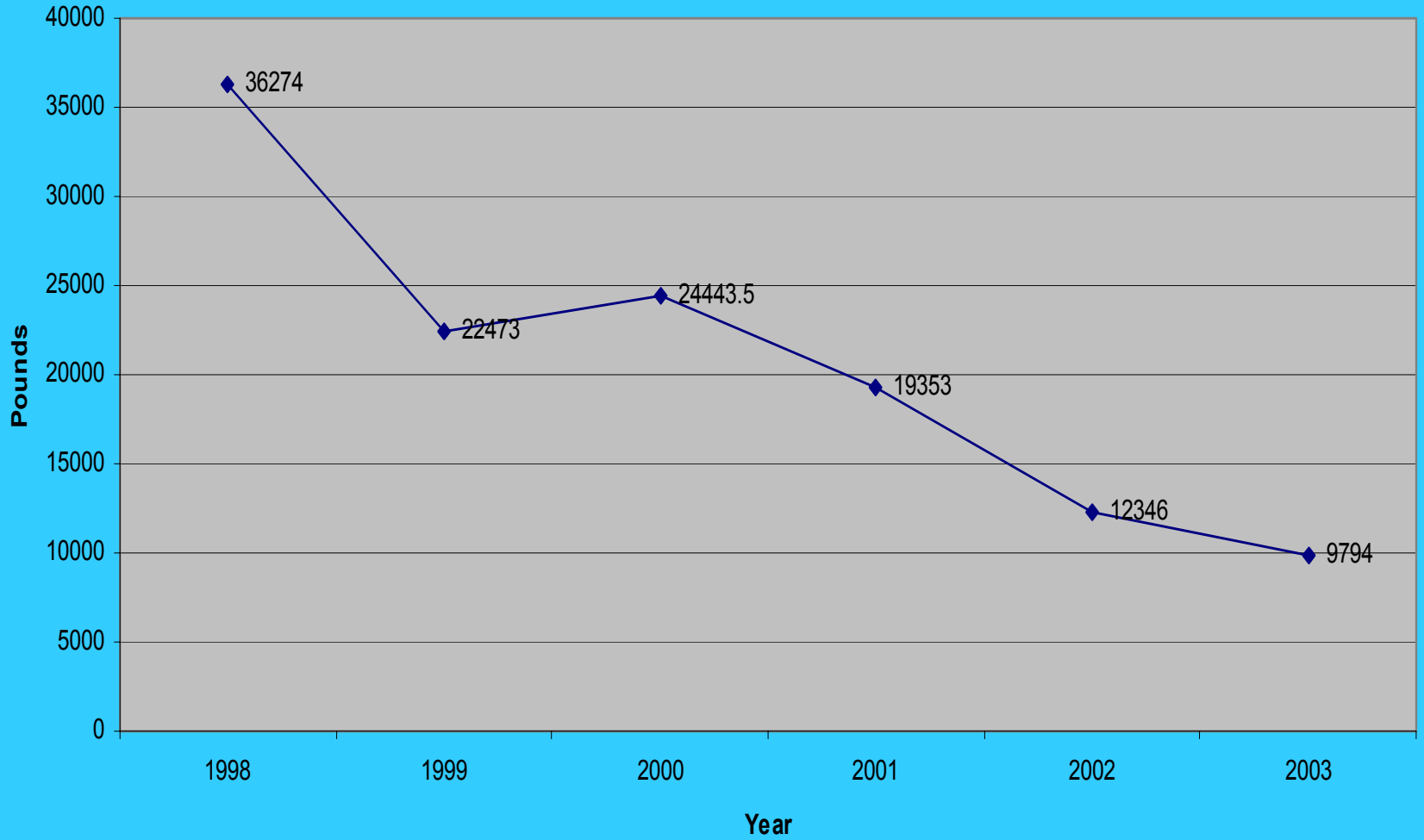


- **Hazardous waste time line**
  - **1998 Generated over 35,000 pounds of waste**
  - **2000 Became partner with EPA / H2E**
  - **2002 Recognized by H2E as Partner in Change and received Making Medicine Mercury Free honors**
  - **2003 H2E Partner in Change**
  - **2003 Mercury Free Purchasing Policy approved**



- **Hazardous time line (cont.)**
  - **April 2003 Solvent recycling in laboratory begins**
  - **June 2003 Hazardous waste quantities drop below LQG threshold for month**
  - **2003 Haz Waste totals drop below 10000 lbs.**
  - **March 2004 4<sup>th</sup> Partners for Change Award**

Hartford Hospital 6-year Hazardous Waste Trend





# Cost Savings



- Solid waste:
  - 800,000 lbs. @ \$0.12 per pound is approx. \$96,000 over one year
- RMW:
  - 500,000 lbs. @ \$0.25 per pound is approx. \$125,000 over 10 years (\$12,500 per year)
- Hazardous Waste:
  - 24,000 lbs. @ \$0.75 per pound is approx. \$18,000 over 5 years (\$3,600 per year)

# Cost Savings

- Mercury:
  - Eliminates spills and associated hazards
  - One Hg Sphygmomanometer contains approx. 1/4 pound of mercury
  - Spill = \$1,000
  - Approx. 1,000 lbs. removed over the past 4 years



# Cost Savings

- Little or no additional costs to get programs started
- Other cost savings:
  - Relaxed regulatory requirements (LQG→SQG)
  - Front end purchasing of chemicals
    - Before recycling- 30 cases per month
    - After recycling- 10 cases per month
    - **Savings of approx. \$1,000 per month**



Questions???