RECYCLING

- **Primary (closed loop) recycling**: materials are turned into new products of the same type.
- **Secondary recycling**: materials are converted into different products.
  - Used tires shredded and converted into rubberized road surface.
  - Newspapers transformed into cellulose insulation.
  - Generally, paper is the most recyclable product as it does not require as much sorting as other substances to break down into a base material.
Globally, MSW is burned in over 1,000 large waste-to-energy incinerators, which boil water to make steam for heating water, or space, or for production of electricity.

- Japan and a few European countries incinerate most of their MSW.
Landfill Site

- In area with soil rich in clay.
- Away from waterways
- Away from population centers
  - But you have to look at the energy required to move the MSW to the landfill
  - Designation of a location
  - Controversial and politically charged
  - NIMBY
Hazardous Waste Regulations in the United States

• Two major federal laws regulate the management and disposal of hazardous waste in the U.S.:
    • Cradle-to-the-grave system to keep track waste.
  – Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
    • Commonly known as Superfund program.
  – Ocean Dumping Act, 1972
    • Prohibits dumping of waste into territorial ocean waters
Brownfields

• Contaminated industrial or commercial sites that may require environmental cleanup before they can be redeveloped or expanded.