

Pollution Prevention Program

Noemí Paulino
Environmental Educator



MISION

Evaluate, plan and implement strategies for the proper management of the solid wastes in order to protect the environment, public health and, the natural resources of Puerto Rico.





Public Policy

- Law 70 of June 23 1978
- Law 70 of September 18 1992
- Regulation 6825 of June 15 2004



Law 70 of 1992-Recycling Law

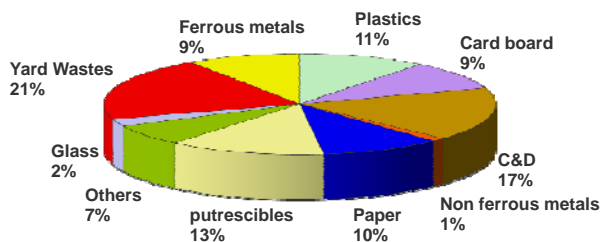


Amended by Law 411 of October 8, 2000

- Apply all installations with more than 10 employees
 - Must present a recycling plan to SWMA
 - Implement the plan
 - Submit progress reports of recycled materials



Puerto Rico Solid Wastes Composition



*Resource: Wehran Characterization Study Puerto Rico, Inc. 2003



Solid Wastes Hierarchy

- **Reduction** - Reduce amount of generated solid wastes
- **Reuse** - Reuse materials.
- **Recycling** - Collecting recyclable materials from the solid wastes stream, sorting and processing recyclables into raw materials, manufacturing raw materials into new products.
- **Compost** - Creating a useful product from organic waste that would otherwise have been landfilled.



Solid Wastes Hierarchy

■ **Waste to Energy** – Facility where recovered municipal solid waste is converted into a usable form of energy, usually via combustion.

■ **Landfills**- Sanitary landfills are disposal sites for non-hazardous solid wastes spread in layers, compacted to the smallest practical volume, and covered by material applied at the end of each operating day. Modern landfills are well-engineered facilities that are located, designed, operated, and monitored to ensure compliance with federal and, local regulations. Solid waste landfills must be designed to protect the environment from contaminants which may be present in the solid wastes.



Recycling benefits



- Saves space in landfills
- Reduces the need for incineration
- Prevents pollution caused by the manufacturing of products from virgin materials.
- Decreases emissions of greenhouse gases that contribute to global climate change
- Conserves natural resources such as timber, water, and minerals
- Helps sustain the environment for future generations.



Recycling benefits



- Reduces Disposal Costs
- Saves energy
- Create job opportunities
- Protects and expands manufacturing jobs and increases competitiveness



Recycling Materials

- PLASTICS
- METALS
 - Ferrous
 - Non ferrous (aluminum cans)
- GLASS
 - Beverage bottles
 - Brown
 - Clear
 - Green
 - Others(Blue, Black, etc)



Recycling Materials

- **PAPER**
 - **High quality**
 - White paper
 - Copy paper, fax, printers
 - **Low quality**
 - Newspapers
 - Card boards



Recycling Materials

- Yard wastes
- Scrap metals (such as automobile hulks)
- Used tires
- Vehicles used oil
- Cooking oil
- Batteries
- Electronics



Planning and Implementing a Recycling Program

- Designate recycling coordinator
- Determine target departments or employees
- Estimate amount of recyclable materials generated
- Design an implementing plan (by departments, areas, Dates, etc...)



 ADS

Planning and Implementing a Recycling Program

- Contact recycling companies
- Recycling containers
 - Type
 - Capacity
- Designate a storage area
- Design an educational and promotional campaign



 ADS

Planning and Implementing a Recycling Program



- Prepare a program budget
- Fill out recycling plan (SWMA form)
 - Introduction (facility description, solid wastes generation and disposal information, costs)
 - Goals and objectives
 - Activities (program description, start up dates, departments, participants employees, recyclables materials, containers description, recycling companies, promotion campaigns, program assessment)



Planning and Implementing a Recycling Program

- Containers & equipment acquirement
- Follow up (briefings, meeting, e-mails)
- Label and supply containers
- Launch the program
- Coordinate materials transport



Planning and Implementing a Recycling Program

- Monitor the program
 - Achievements
 - Corrective actions
 - Data Analysis
 - Economical aspects

- Comply with regulations
 - SWMA
 - EQB



Questions?



**Solid Waste Management Authority
Pollution Prevention Program**

apaulino@ads.gobierno

bgonzale@ads.gobierno

apagan@ads.gobierno.pr

