

A Brief Timeline of Waste (And....*My Life in Garbage*)

A&WMA-NES Fall 2015 Conference

Organics Solid Waste Bans – Drivers & Impacts



Some key points in the solid waste timeline....



1866: New York City's Metropolitan Board of Health declares war on garbage, forbidding the "throwing of dead animals, garbage or ashes into the streets."

1885 – 1908: 180 garbage incinerators are built in the United States

1896: New York City requires residents to separate household waste -- food waste in one tin, ash in another, and dry trash in bag or bundle -- and assigns 40 policemen to enforce the new edict.

1902: A survey of 161 cities by the Massachusetts Institute of Technology finds that 79% of them provide regular collection of refuse



1909: 102 of 180 incinerators built since 1885 are abandoned or dismantled. Many had been inadequately built or run. Also, America's abundant land and widely spaced population made dumping garbage cheaper and more practical.

1916: Major cities estimate that of the 1,000 to 1,750 pounds of waste generated by each person per year, 80% is coal and wood ash.

1917: Shortages of raw materials during World War I prompt the federal government to start the Waste Reclamation Service, part of the War Industries Board. Its motto is "Don't Waste Waste -- Save It." Every article of waste is considered valuable for industry.



1920s: During this decade, "reclaiming" or filling in wetlands near cities with garbage, ash, and dirt, becomes a popular disposal method.

1933: Communities on the New Jersey shore obtain a court order forcing New York City to stop dumping garbage in the Atlantic Ocean. On July 1, 1934, the Supreme Court upholds the lower court action, but applies it only to municipal waste, not commercial or industrial wastes

1939: Wisconsin Select beer is sold in no deposit, no return bottles, to compete with the recent introduction of beer in no return cans

1941 America enters World War II. Rationing of such materials as wood and metal forces an increased reliance on synthetic materials such as plastics. Low density polyethylene film, developed during wartime, replaces cellophane as the favorite food wrap by 1960.



1950s: The growth of convenience foods (frozen, canned, dried, boxed, etc.) increases the amounts and changes the types of packaging thrown away

1959: The American Society of Civil Engineers publishes a standard guide to sanitary landfilling. To guard against rodents and odors, it suggests compacting the refuse and covering it with a layer of soil each day.

1965 The Solid Waste Disposal Act, the first federal solid waste management law, is enacted.

1970 The federal Clean Air Act enacted. New regulations lead to incineration shut downs.



1986: Rhode Island enacts the nation's first statewide mandatory recycling law.

1990: 140 recycling laws enacted in 38 states and the District of Columbia.

2011: Connecticut becomes the first state to ban organic food waste from landfills



My waste-not, want-not mentors......



What they did.....



- Dried and re-used paper towels
- Used coffee grinds.....twice
- Defined "garbage" as food waste; everything else was "trash". "Philip, put the garbage in the can".
- Wore the same clothes for 20 years; then donated them.
- Convinced me that I had to finish everything on my plate, because some children 'somewhere in the world' (P.C.) were starving!
- Used <u>any</u> food waste as fertilizer in the family garden.

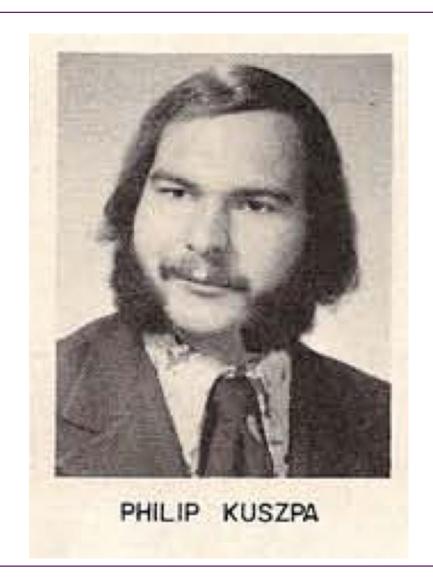
What they did.....



- Milk was delivered in glass bottles and returned for re-use.
- Same for 'soda' which came in 6.5 ounce bottles!
- Even bleach (or 'start-water' as they called it) came in returnable glass gallons. [There's a joke here!]
- Extra food from family parties was driven down to the "Hobo's" (a quote....not P.C.) at the railroad station.



I was a taught to be part of the revolution!!



As many of my generation, I became an engineer on a mission.....



- My first job was designing custom air pollution control systems for the waste-to-energy business
- My first projects were.....the Framingham and Fall River Municipal Incinerators (Yes they had 'incinerators' back then) (There a few stories here.....'pizza & weed')
- Helped to patent & design the first dry scrubber/fabric filter systems used on WTE facilities
- Worked on projects for WTE plants across the US and Japan
- Was introduced to "Anaerobic Digestion" in 2010
- Participated in the MassDEP's Organics Reduction Task Force
- Permitted the nations first commercial, full scale organic food waste A-D project in 2011 (that was never built due to public opposition)
- Presently working on six A-D projects or potential projects in the US.

Thank you for attending!

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