### **HOW OUR WASTE IS HANDLED**



### FACILITY COMPARISON

### INCINERATOR

•	Mass	burning	of	combustible	solid	waste
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- · Regulated by environmental agency
- Not self-sustaining
- Noncombustibles and incinerator ash from process must be landfilled
- · Landfill-dependent Needs landfill to survive
- Lesser used Only 12% of waste stream incinerated
- Environmental concerns about polluting air emissions and potentially hazardous incinerator ash
- Produces Green Energy
- · Not economically sustainable/affordable
- Depends on taxpayer or governmental subsidization to survive
- · Less preferred end use disposal option

### LANDFILL

- Engineered land-based disposal of solid waste
- · Regulated by environmental agency
- · Completely self-sustaining
- · Can handle all waste types
- Not dependent on other facilities or technologies
- Most used 54% of waste stream landfilled<sup>1</sup>
- Well-established and proven environmental protection and control systems
- Produces Green Energy
- · Is economically sustainable/affordable
- No subsidization necessary
- Most preferred end use disposal option

# THE TRUTH INCINERATION BY ITSELF

# IS NOT "Greener" IS NOT "Landfill Free" IS NOT "Sustainable"

Today, all modern businesses are concerned not only about costs and productivity, but also about the environment. Companies want to "Go Greener" by recycling more and by striving for environmentally sound waste management and disposal systems that are sustainable.

Some in the waste industry are trying to suggest that incineration is a sustainable waste management option – claiming that incineration is a "Greener Way" to dispose of waste and is also "Landfill Free." These suggestions are wrong in two important ways. Incineration <u>IS NOT</u> "Greener," and most certainly it <u>IS NOT</u> "Landfill Free."

### The Incineration of Waste <u>IS NOT</u> Landfill Free

Incineration – the burning of waste at very high temperatures – is, in fact, "Landfill Dependent," not "Landfill Free." For example, various waste stream components such as glass, metals, ceramics, bricks, concrete, etc. are noncombustible and must be otherwise disposed of, most often at a landfill. More significantly from an environmental point of view, the incineration process itself generates its own waste stream – potentially hazardous incinerator ash – which must be landfilled.

In short, the incineration process depends on a landfill for the disposal of "noncombustibles" and for the disposal of "potentially hazardous incinerator ash." Without a modern sanitary landfill with comprehensive environmental protection and control systems,



## THE TRUTH ABOUT WASTE INCINERATORS



the incineration process does not work and is not sustainable. Noncombustibles and potentially hazardous incinerator ash constitute about 25% of the weight of waste delivered to an incinerator, and they must be landfilled.

## Incineration <u>IS NOT</u> a "Greener" Waste Disposal Option

The incineration process results in two "Non-Green Environmental Risks." The first is toxic pollutants that are exhausted into the air from the burning of waste, such as dioxins, furans, sulphur dioxide, hydrochloric acid and heavy metal pollutants. The second is potentially hazardous incinerator ash that is the end product of the incineration process and that contains concentrated and elevated levels of dangerous heavy metals such as arsenic, nickel, chromium, mercury, lead, cadmium, zinc and manganese. All incinerator ash must be landfilled and special regulatory approvals are required to do so.

Based upon these two "Non-Green Environmental Risks" attributable to incineration, it cannot be reasonably concluded that incineration is a "Greener" waste disposal option, or that it is, by itself, a sustainable waste management solution.

All of the above data is taken from the following publications: "Municipal Solid Waste Incineration" World Bank Technical Paper (Rand/Maukoh/Marsen); "Health Effects of Municipal Waste Incineration" (Hettemer – Frey/Travis); EPA Hazardous Air Pollutant List; PADEP Residual Waste Regulations; "The Economics of Waste" (Porter)