

# **Incineration versus the Alternatives**

**Paul Connett, PhD**

Executive Director

AmericanHealthStudies.org (AEHSP)

[pconnett@gmail.com](mailto:pconnett@gmail.com)

**Oxfordshire, October 8, 2009**

# OUTLINE

- 1. Waste and the Big Picture
- 2. The arguments against incineration
- 3. The Zero Waste 2020 strategy
- 4. The Key Step Forward
- 5. Zero Waste Initiatives Around the World
- 6. Back to the Big Picture

## **2. Other arguments against incineration**

# **OTHER** arguments against incineration

- 1) It is a poor economic investment
- 2) Very few jobs created for very large capital investment
- 3) It wastes valuable time
- 4) It is very inflexible and stifles innovation
- 5) It generates a toxic ash

# **OTHER** arguments against incineration (continued)

- 6) It doesn't get rid of landfills
- 7) It produces toxic air emissions
- 8) It is unscientifically and poorly monitored
- 9) Incineration is extremely unpopular with the public
- 10) There is a better alternative strategy

# **1. Incineration is a poor investment**

- Most of the money spent on incinerators goes into complicated machinery and leaves the community (and even the country)**
- Over half the money spent on a modern incinerator goes into air pollution control equipment**
- Incineration is one of the most expensive way of generating electricity**



# An incinerator in Brescia, Italy



**The Brescia incinerator  
cost 300,000,000 Euro  
and has created just 80  
jobs.**



# **Incineration creates very few jobs**

- In contrast, the money spent on the alternatives goes into jobs and stays in the community.**

# Nova Scotia program (Canada)

- Diverted 50% of waste from landfill in 5 years (Halifax ~ 60%)
- **1000 jobs created** in collection and treatment of recyclables and compostables
- **Another 2000 jobs created** in the industries handling the recovered materials

## **2. Incineration wastes valuable time!**

- **It takes about 25 years (or more) to pay off the massive capital investment costs involved with building an incinerator.**
- **We don't have this time to waste!**

### **3. Incineration stifles innovation**

- “An incinerator needs to be fed for about 20 to 30 years and in order to be economic needs an enormous input from quite a region, so for 20 to 30 years you stifle innovation, you stifle alternatives, just in order to feed that monster which you build”**
- Ludwig Kraemer, former Head of EU Waste Management, BBC 1 Panorama Documentary “Rubbish”**

**4. Incineration makes handling waste very complicated and dangerous**

# Think of an incinerator as three boxes

**1.**

The **Furnace** which  
Converts 100's of  
Tons of trash into  
Trillions of tiny  
Toxic particles  
and gases.



# Think of an incinerator as three boxes

**1.**

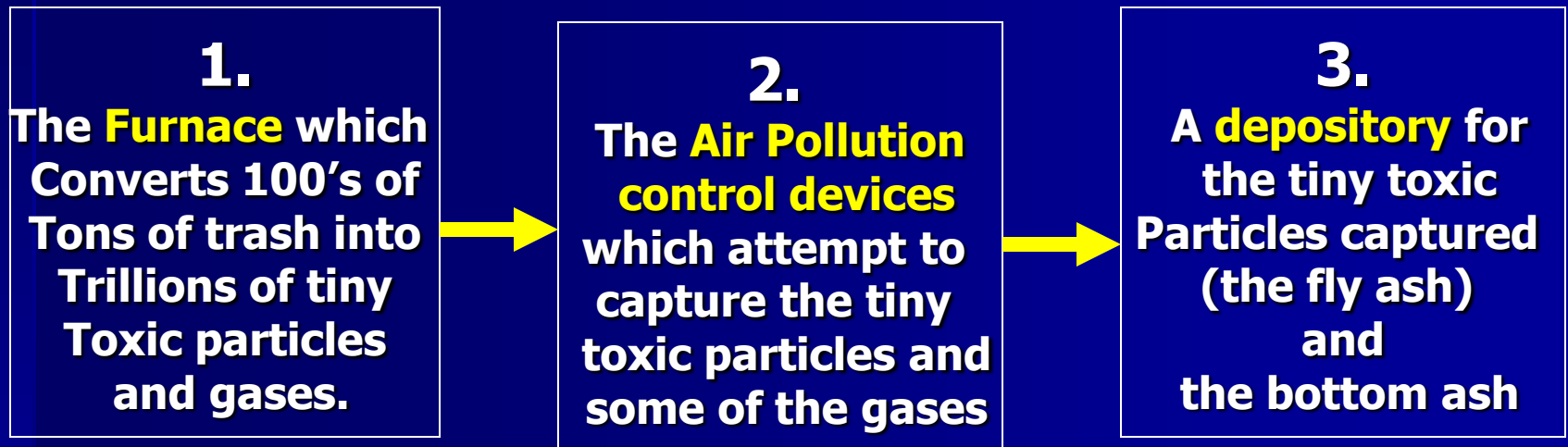
The **Furnace** which  
Converts 100's of  
Tons of trash into  
Trillions of tiny  
Toxic particles  
and gases.



**2.**

The **Air Pollution  
control devices**  
which attempt to  
capture the tiny  
toxic particles and  
some of the gases

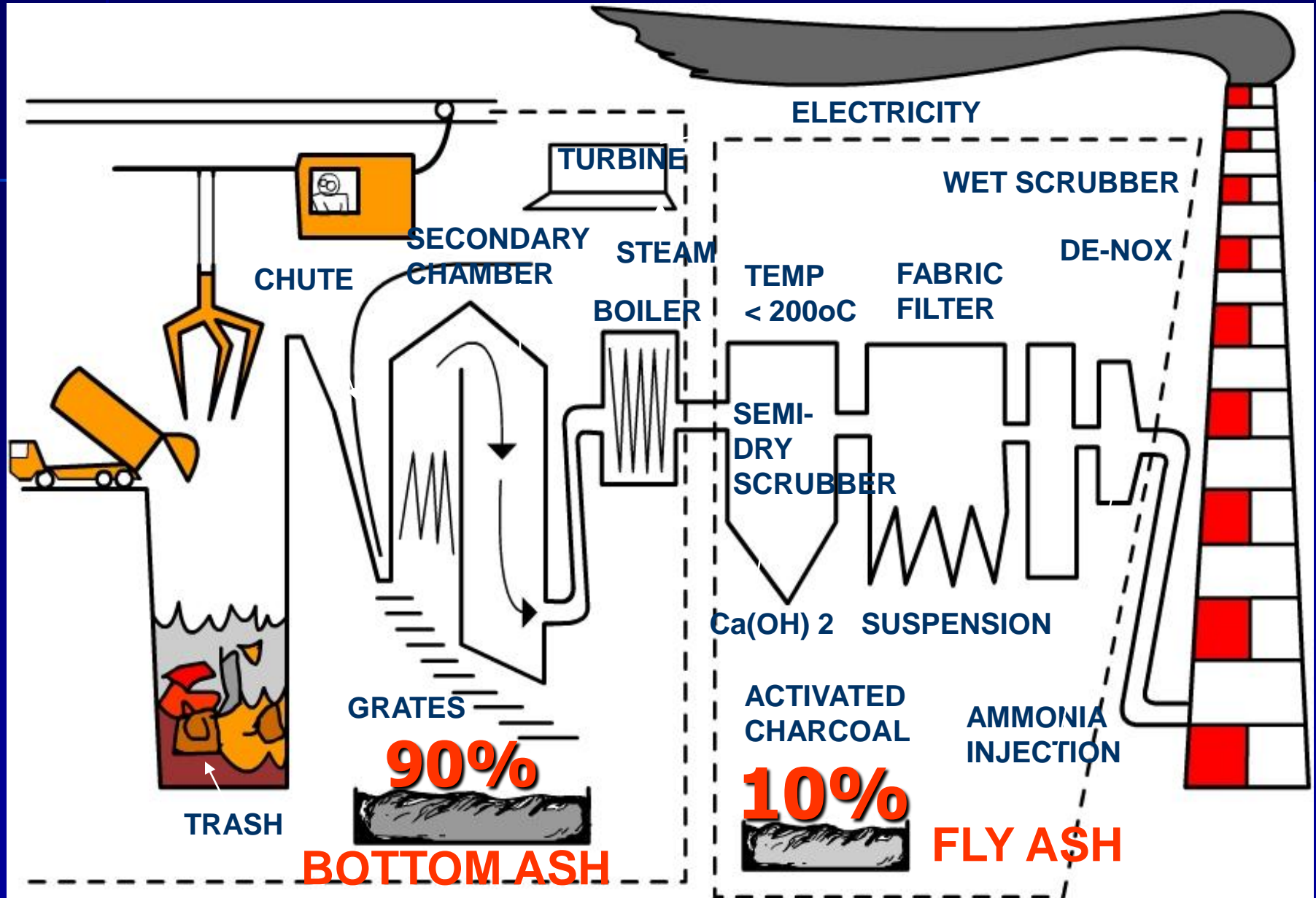
# Think of an incinerator as three boxes



## 5. Incinerators produce a toxic ash

- For every **four** tons of waste burned you get **one ton of ash (or more)**
- That nobody wants!

**For every 4 tons of trash you get about one ton of ash**



# Ash is toxic and difficult to get rid of

- In Germany & Switzerland fly ash put into nylon bags and placed in salt mines
- In Japan some incinerators vitrify the ash
- In Denmark...
- They send all the ash to Norway!

## **6. Incineration does not get rid of landfills**

- You still need a landfill for the toxic ash