

## Meeting the challenge of the Proper Management of Hazardous Waste



*Why high temperature  
incineration of hazardous waste  
is so vital*

### **EURITS, what's in a name?**

*Hazardous waste contains hazardous components  
& contaminants*

### **Who is Eurits?**

- The European Union for the Responsible Incineration & Treatment of Special waste
- An association of hazardous waste management companies across the EU
- Together, those companies are responsible for over 90% of the hazardous waste incineration in the EU

### **Main activities**

Make sure haz waste is handled, managed & treated very specifically:

- Avoid any dispersion of hazards or contaminants into the environment
- Ensure that public health is protected
- Clarify safe treatment of hazardous waste requires specialist handling & facilities

### **Key role**

- The EU's leading voice on hazardous waste
- +20 years experience in raising awareness of the need for the proper management of hazardous waste
- Consistent promotion of best sustainable environmental practice

# Why high temperature incineration of hazardous waste is so vital – Q&A

**Why hazardous waste incineration was developed as a separate industry?**

**Mid-1960s:**

- Increasing industrial production & hazardous waste volumes
- Chemical industry developed rotary kiln as a new sustainable technology vs landfill

**Beginning of 1970s - 2000**

- Industry & public authorities become aware of the environmental advantages of rotary kiln technology
- Increase of hazardous waste incineration plants across Europe & continuous improvement of technology

**Today:**

- Hazardous waste with complex components needs environmentally-friendly treatment
- Different incineration technologies (eg. grate furnaces, fluidised beds or rotary kilns) & waste streams (eg. non-haz/haz waste, sludges)
- Each technology is specialised for a particular waste stream
- For hazardous waste it is crucial the best tool – high temperature rotary kiln – is selected

**What is special about hazardous waste incineration?**

Examples	Hazardous Waste Incineration
• The incineration technology	A rotary kiln incinerates at temperatures between 1000°C and 1300°C. The incineration happens on a surface of liquid slags in a rotating furnace.
• The feeding system	<ul style="list-style-type: none"> <li>• Cold and hot liquids: via lances</li> <li>• Solids: via cranes and conveyor belts</li> <li>• Drums: via closed shredding units or directly</li> <li>• Gases: via specific feeding lines</li> </ul> Calorific value (energy content) can be very variable.
• The conditions of incineration	<ul style="list-style-type: none"> <li>• Target: destroy hazardous components and contaminants</li> <li>• Adjustable conditions within the rotary kiln to suit the type of waste and contamination</li> <li>• 5 main drivers (temperature, turbulence, residence time, type of waste and throughput) are part of the treatment process</li> <li>• Special operators control and regulate these parameters and use the technology to best effect.</li> </ul>
• The Seveso Criteria	Plant, Equipment, Security and Staff meet all requirements of the Seveso Criteria.

**What do the technical differences mean in terms of the quality of the hazardous waste incineration process?**

Examples	Hazardous Waste Incineration
• Heavy Metals are precipitated within the slag (vitrified) or within the flue gas cleaning system.	✓
• Volatile metals like Mercury or Arsenic are precipitated or absorbed by chemical or physical treatment.	✓
• High contents of Halogens or Sulphur are captured and chemically converted.	✓
• The calorific value of the waste streams can be variable between 0 and 40 MJ/kg.	✓
• Toxic, Corrosive, Mutagenic or other extreme dangerous waste streams can be connected directly to the feeding system (closed handling).	✓
• The net energy of the incineration process is used to supply internal or external energy demands.	✓

**Contact info**