

SPECIAL WASTE TREATMENT AND RECOVERY

CONTENT OF COURSE

1. INTRODUCTION

1.1. EU-Waste Framework Directive (2008/98/EC) and Thermal Treatment of Waste

1.2. Circular Economy Package

1.3. RIL-Ternary Diagram Method for dynamic visualisation of MSW performance in the EU

2. WASTE PROPERTIES AND SPECIFICATIONS

2.1 Combustion Parameters

3. WtE-SYSTEMS

3.1 Waste Incinerators

3.1.1 Grate Firing Systems

3.1.2 Fluidized Bed Incinerator

3.1.3 Rotary Kiln Firing System for Hazardous Waste

3.1.4 Recovery of Materials & Energy

3.1.5 Public Acceptance of Waste Incinerators

3.1.5.1 The Dioxin Story

3.2 Alternative WtE-Systems

3.3 Co-Incineration of Waste Fuel (RDF & SRF)

3.3.1 Waste Fuels RDF and SRF

3.3.2 Production of SRF for Co-Incineration Plants

3.3.2.1 SRF PREMIUM Quality

3.3.2.2 SRF MEDIUM Quality

3.3.2.3 SRF LOW Quality

3.3.3 Quality Assurance and Legal Requirements

3.3.3.1 Sampling & Analyses according to CEN TC 343

3.3.3.2 Limitation of Pollutants in Input Material

3.3.3.3 Limitation of Pollutants in Output (i.e. emission control, product quality)

3.3.4 SUBSTITUTE FUEL IN CEMENT INDUSTRY

3.3.4.1 Possible Feeding Ports in the Clinker Process

3.3.4.2 100% Substitution of Fossil Fuels

3.3.5 Innovative Pollution Abatement Systems for Cement Plants

4. CONCLUSIONS

5. LITERATURE