

Lecture: Technical Systems for Thermal Waste Treatment

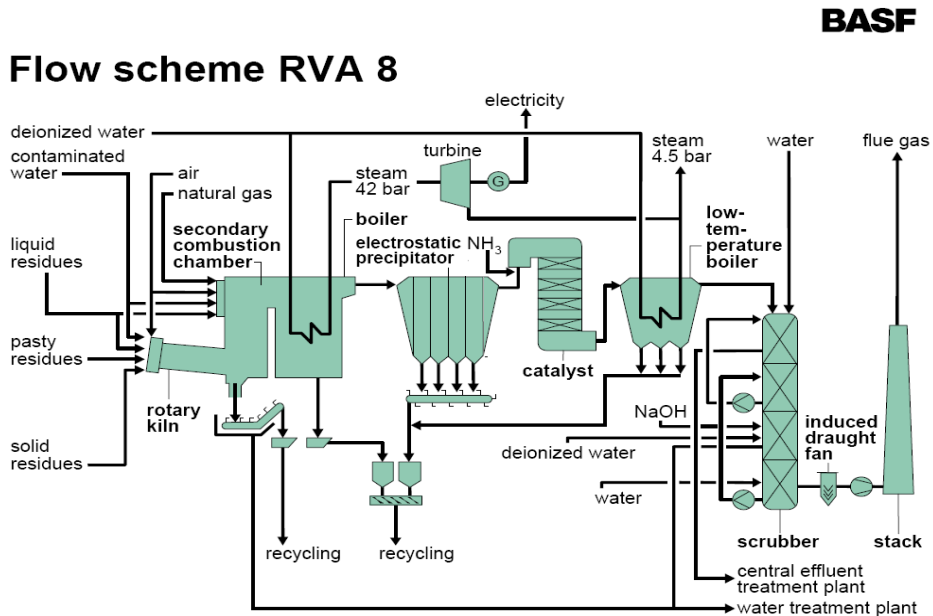


Figure: Hazardous waste incineration plant (BASF AG, Ludwigshafen)

Lecturer:

Prof. Dr.-Ing. T. Kolb

Start:

WS 2015/16, Mittwoch, 21.10.2015

Time:

Mittwoch, 11.30 Uhr – 13.00 Uhr, wöchentlich

Location:

Geb. 50.35, SR am Fasanengarten (R101)

SWS:

2

Language:

English

LV-Nr:

22516

Lecture:

The master course “**Technical Systems for Thermal Waste Treatment**” offers basics on thermal processes for waste treatment (pyrolysis, gasification, combustion) and energetic use of waste fractions (municipal solid waste, MSW / hazardous waste / sewage sludge). Technical systems for thermal waste treatment are discussed in detail based on industrial facilities (e.g. Grate furnace, rotary kiln and fluidized bed furnace). The lecture also presents basics of combustion and refractory engineering, aspects of waste management and legal regulations. Tools for process evaluation concerning energy efficiency and ecology of waste treatment are discussed. 2 excursions (industrial sites and research facilities) offer technical process understanding.

Contents:

- Motivation
- Definitions
- Legal Aspects
- Waste Management
- Technical Systems
- Refractory engineering
- Basics of Combustion Engineering
- Process Evaluation