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# 10<sup>TH</sup> ANNUAL INTERNATIONAL EXPERTS' CONFERENCE ENVIROMANAGEMENT 2019 WASTE T<sup>o</sup> ENERGY

ENERGY RECOVERY • RDF • TECHNOLOGY  
• ECONOMY • LEGISLATION • PR



## LECTURER

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Managing director  
LUEHR FILTER GmbH  
Stadthagen  
Germany

## PRESENTATION

Influence of new WI-BREF on the concepts of flue gas cleaning in the future - what will change?

## KEY WORDS

WI-BREF; Flue Gas Treatment; Conditioned Dry Sorption; Acid Gas Scrubbing; Dioxin- & Mercury Removal; NOx-Reduction

## ANNOTATION

In view of the currently valid emission limit values for Waste to Energy plants according to the Industrial Emission Directive (IED) preferably semi-dry / conditioned dry systems are used for the Flue Gas Cleaning. In connection with the revision of the WI-BREF, which is currently being prepared, considerably stricter limit values will be legally required in the European Union as of the beginning of the year 2020 for most of the pollutants. This will have an impact on the future selection of suitable Flue Gas Treatment systems.

It is out of question that appropriate gas cleaning systems are available for the complete range of emission limit values for the pollutants listed in the draft of WI-BREF. However, when choosing the most suited technology not only the reliable observance of emission limit values but also the economic impact to the Waste to Energy plant are of importance. The Flue Gas Treatment plant does not only significantly contribute to the investment costs when building a new plant, but is also responsible for a large part of the plant operating costs. Under consideration of the limit values to be stipulated by the individual member states of European Union and based on the corresponding permit for a new plant the challenge is thus to find the most suitable process solution for the flue gas treatment considering the criteria above.

## ANNOTATION

Apart from the limit values for new plants, the revised WI-BREF will also determine stricter emission limit values for existing plants. Here it is necessary to check with which measures the existing plants might be best optimised.

This lecture presents process solutions for the observance of the new emission limit values under consideration of economical aspects for all individual pollutants. The solution approaches are explained by means of reference projects. In addition to the subject of emission limit values this lecture also discusses further important items of the revised WI-BREF, such as „normal and others than normal operation conditions“ (NOC and OTNOC) as well as uncertainties to be considered for continuous measurements.

## LECTURER'S PROFILE

Ruediger Margraf, Managing Director, LUEHR FILTER GmbH, Germany  
Studies of mechanical engineering, Technische Universität Braunschweig

Thirty eight years of working experience in the field of sustainable Air Pollution Control Technology and actively taking part in the progressive and innovative development of the LUEHR FILTER products and technologies for the separation of particulate and gaseous substances from the air and/or process gases.

1976 - 1981

Studies of mechanical engineering, Technische Universität Braunschweig

1981

Entry in company LUEHR FILTER GmbH & Co. KG, Stadthagen (Air pollution control technology) - Working in the field of „Research and Development“ and in the technical department

1993

Appointment as authorised representative

1997 - 2010

Managing Director of LUEHR FILTER GmbH & Co. KG, Stadthagen

2011 - 2017

Managing Partner of LUEHR FILTER GmbH & Co. KG, Stadthagen

since 2017

Managing Director of LUEHR FILTER GmbH, Stadthagen