

Programme, June 24-28, 2013

ISWA Study Tour WASTE-TO-ENERGY



Germany

Austria

Italy



ISWA Austria
International Solid Waste Association



ISWA
International Solid Waste Association

INTRODUCTION

Practice Seminar on Sustainable Waste Management in Austria based on Prevention, Recycling, Recovery, Treatment, and Intermediate Storage - without any disposal of organic wastes exceeding 5 % TOC in landfills



Led by

Franz Neubacher

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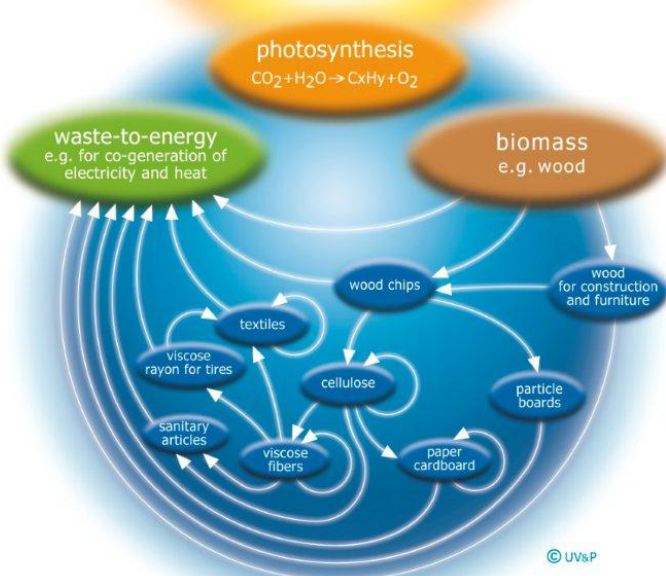
[UV&P Environmental Management and Engineering](#)

Method for the Practice Seminar

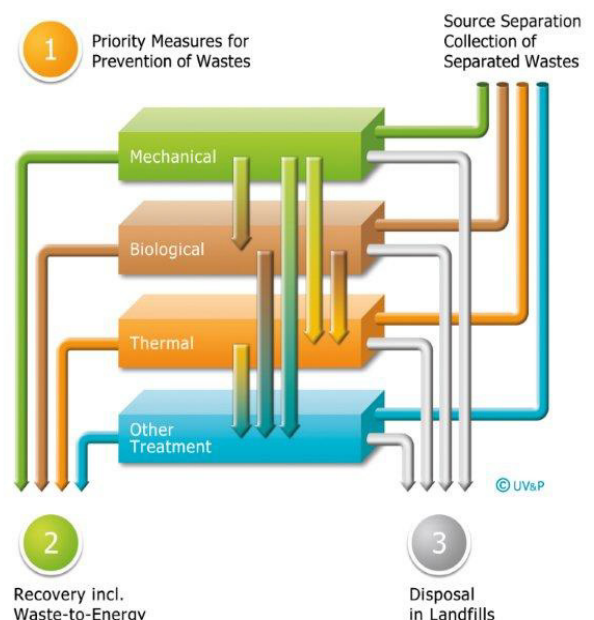
There are 3 pillars of individual benefit and professional learning offered within this unique practice seminar:

1. Quality seminar taught by senior experts in waste management, environmental policy, and engineering
2. Visits to waste treatment facilities representing Best Available Techniques including discussion with operators, government inspectors, and reputable suppliers
3. Discussions with political and environmental experts on control and public acceptance of hazardous waste treatment and waste incineration plants (typical “lulu” projects - locally unwanted land use and “NIMBY” – not in my backyard)

Green Technology: Recycling and Recovery for Sustainable Waste Management



Future-oriented Integrated Systems for Sustainable Waste Management



MONDAY, June 24, 2013

9.00 am – 10.30 am

Welcome Address by ISWA, Introduction of Participants at the [Seminar Hotel Sailer](#) in Innsbruck
Sustainable Waste Management, Recycling and Recovery of Energy from Waste, Introduction by Dr. Helmut Stadler, Vice-President of ISWA International

10.30 am – 11.00 am

Coffee & Tea break

11.00 am – 12.30 pm

Seminar on “Development of Waste Management in Austria and Europe”

Integrated pollution prevention and control, policy and legal framework in Austria: landfill tax and clean-up of contaminated sites - legal ban on hazardous and untreated wastes exceeding 5 % TOC from disposal in landfills - development of the most stringent emission standards worldwide - status of waste management in different regions and countries of EU - the 20-20-20 Goals of the EU for 2020

12.30 pm – 1.30 pm

Lunch Buffet

1.30 pm – 3.00 pm

Seminar on “Introduction to Waste Incineration and Integrated Pollution Prevention and Control”

Fundamentals of drying, pyrolysis, gasification, and combustion – odour control and control of atmospheric emissions – auxiliary chemicals – treatment of liquid and solid residues – recovery of materials – co-incineration of waste-derived fuels in industrial production processes (e.g. in cement kilns, blast furnaces)

3.00 pm – 3.30 pm

Coffee break & transfer by bus to Ahrental

3.30 pm – 5.00 pm

Technical Tour of the Sorting and Mechanical Processing Plant for Municipal and Commercial Solid Wastes of [AAG](#) for the central region of Tirol (Austria)



5.00 pm – 5.30 pm

Transfer by bus back to the seminar hotel and coffee break

5.30 pm – 7.00 pm

Seminar on “Systems for Thermal Waste Treatment and Energy Recovery”

Characterisation of wastes as fuel – sorting and pre-treatment of wastes – fluidised bed systems – rotary kiln with afterburning chamber – grate system – practical experience and limitations for specific wastes in various systems according to state-of-the-art in Austria and the EU

7.00 pm – 8.00 pm

Dinner



TUESDAY, June 25, 2013

7.30 am – 9.00 am

Transfer by bus from Innsbruck to Bolzano (Italy)

9.00 am – 10.30 am

Waste Incineration according to state-of-the-art grate firing systems

(special presentation by Edmund Fleck, MARTIN GmbH; member of ISWA Working Group on Energy Recovery): Technology, steam boilers and energy recovery by co-generation, development and future perspectives on the economics of Waste-to-Energy for municipalities and different regions

10.30 am – 10.45 am

Refreshments

10.45 am – 12.00 pm

Overview and Technical Tour of the new Waste-to-Energy Plant in Bolzano (Italy)

Development of municipal waste management in the Autonomous Province – design of the new waste-to-energy facility – flue-gas treatment process - emission standards – cogeneration and district heating – recovery and disposal of residues – financing

12.00 pm – 3.30 pm

Transfer by bus to Rohrdorf (Bavaria, Germany) incl. stop for lunch at a scenic location in the Dolomites

3.30 pm – 5.30 pm

Overview and Technical Tour of the large cement plant [Rohrdorfer](#) including advanced flue-gas cleaning with SCR, utilisation of waste-derived raw materials and waste-derived fuels, resource efficiency and energy recovery

5.30 pm – 7.00 pm

Transfer by bus to Nussdorf at the Lake Attersee ([Seminar Hotel Aichinger](#))

7.00 pm – 8.00 pm

Dinner



WEDNESDAY, June 26, 2013

7.30 am – 9.00 am

Seminar on “Alternative systems for treatment of residual municipal wastes with options for energy recovery”

Technical alternatives according to the legal framework in Austria and the EU - mechanical sorting - biological treatment options - intermediate storage - incineration - energy efficiency - green house gas emission balances - experience and foreseeable future development

9.00 am – 9.30 am

Coffee & Tea break

9.30 am – 11.00 am

Seminar on “Prevention and control of fire hazards”

(special presentation by Ass. Prof. Hannes Kern, University of Leoben and Representative of Firefighters Association): Preconditions and causes for fire hazards in waste treatment facilities and storage of wastes – state-of-the-art requirements in Austria and the EU – design, operation, monitoring, and control of large intermediate storage of organic wastes and waste-derived fuels – examples of failures and references for appropriate intermediate storage of high calorific wastes

11.00 am – 1.00 pm

Transfer by bus to Salzburg including stop for lunch at a scenic restaurant with view of Lake Mondsee

1.00 pm – 3.00 pm

Overview and Technical Tour of Municipal Waste Treatment Plant [SAB](#)

in Salzburg: Public education and separate collection of various municipal wastes – sorting and mechanical processing – biological waste treatment – recovery and utilisation of biogas from anaerobic treatment and (old) landfill – logistics for transport of waste by train to waste-to-energy plants



SALZBURGER ABFALLBESEITIGUNG

3.00 pm - 4.00 pm

Transfer by bus from Salzburg to Lenzing

4.00 pm – 6.00 pm

Overview and Technical Tour of the CFB – Waste-to-Energy Plant of [AVE](#)

at the industrial site Lenzing (Upper Austria): Technical overview – integration of odorous industrial off-gas into the combustion system for improvement of ambient air quality by operating the waste-to-energy plant - emissions and environmental quality control - energy efficiency - site walk of the technical plant including waste reception and mechanical processing - process control - residues - win-win economic performance for integration of waste disposal with co-generation of thermal energy and electricity necessary for industrial production - sustainability based on renewable resources



6.00 pm – 6.30 pm

Transfer by Bus from Lenzing back to the seminar hotel at the Lake Attersee

7.00 pm – 8.00 pm

Dinner



THURSDAY, June 27, 2013

7.30 am – 9.00 am

Seminar on “Criteria for site selection for new Waste-to-Energy plants and public acceptance”

Technical and economical criteria - examples for project development - resource and energy efficiency - greenhouse gas emissions and climate protection - public information - management of public hearings - role of media and politics - positive examples for acceptance of large waste-to-energy facilities by Green activists and politicians - discussion of failures and typical mistakes – situation in developing countries with low and middle income economies

9.00 am – 9.30 am

Coffee & Tea break

9.30 am – 10.30 am

Transfer by bus to Linz

10.30 pm – 12.30 pm

Overview and Technical Tour of the Mechanical Processing and Waste-to-Energy Plant Linz AG (Upper Austria)

LINZ AG

Technical overview of waste management and treatment of municipal solid wastes and residues from sewage treatment in the region of Linz – emissions – energy management - site walk of the fluidised-bed waste-to-energy plant

12.30 pm – 3.00 pm

Transfer by bus to Burghkirchen (Bavaria, Germany) including stop for lunch

3.00 pm – 5.00 pm

Overview and Technical Tour of the regional Waste-to-Energy plant [ZAS Burghkirchen](#) in Bavaria

Technical overview – transport logistics – legal framework for municipal waste management in Bavaria and Germany - emissions control - treatment and recovery of solid residues - energy management - economic performance - site walk of the technical plant

5.00 pm – 6.00 pm

Transfer by bus to the city of Salzburg

6.00 pm – 8.00 pm

Reception (B2B Meeting) by the [Austrian Chamber of Commerce \(WKO\)](#) in Salzburg

Welcoming address and buffet sponsored by the Austrian Chamber of Commerce with the opportunity for B-2-B meetings with reputable suppliers of various machinery and turn key equipment successfully used in various Waste-to-Energy facilities in Austria and the EU

8.00 pm – 9.00 pm

Transfer by bus back to the seminar hotel at the Lake Attersee



FRIDAY, June 28, 2013

7.30 am – 8.30 am

Closing remarks and discussion

Opportunity for a specific session and discussion with Dr. Johann Wimmer (Environmental State Attorney 1990 – 2007 in Upper Austria), or with Senior Chemical Engineer Helmut Löffler (Head of the MA22 Environmental Protection Department 1991 to 2000 of the City of Vienna; responsible for air pollution control with the most stringent emission standards worldwide), or with Senior Engineer Gerhard Gresslehner (Chief of Professional Fire Fighting Department in Linz until the end of 2012, Representative of Austria in the International Fire Fighting Association CTIF)

8.30 am – 9.00 am

Coffee & Tea break

9.00 am – 11:30 am

Transfer by bus to Munich

11.30 am – 1.30 pm

Overview and Technical Tour of the Sewage Treatment BFB Plant in Munich (Germany)

Sewage treatment – sludge transport via pipelines – mechanical dewatering – combustion in BFB – boilers with recovery of energy – emissions control – recovery and disposal of residues

1.30 pm – 2.00 pm

Transfer by bus to the International Airport Franz-Josef-Strauss in Munich (option for departure)

2.00 pm – 5.00 pm

Transfer by bus from the Airport Munich to the Airport Innsbruck (option for departure) as well as to the center of Innsbruck (option for departure by train)



REGISTRATION

The deadline for registration is **June 10, 2013. Please register with Ms Julia Schönherr by using the Registration Form** (see attachment or [here](#)). Registration will only be accepted in written form (E-Mail or Fax) and will be acknowledged by E-Mail within 7 days after submission.

Early Bird Registration Fee (Registration and Payment latest by March 31, 2013)*:

- 1 person, ISWA Member € 2,400 (approx. US\$ 3,200 / CAN\$ 3,100 / GB£ 1,900)
- 1 person, Non-Member € 2,790 (approx. US\$ 3,700 / CAN\$ 3,600 / GB£ 2,200)

Registration Fee (Registration or Payment after March 31, 2013)*:

- 1 person, ISWA Member € 2,600 (approx. US\$ 3,400 / CAN\$ 3,400 / GB£ 2,100)
- 1 person, Non-Member € 2,990 (approx. US\$ 3,900 / CAN\$ 3,900 / GB£ 2,400)

*A total of 5 Participants from 5 different low- and lower-middle-income economies (according to the current [World Bank list](#)) receive a 50% discount on the registration fee. The discount is awarded on a first-come-first-serve basis.

All stated amounts are free of VAT. Registration fee includes accommodation with breakfast from June 23 to 28, 2013 ([Seminar Hotel Sailer](#) in Innsbruck, Tyrol, [Seminar Hotel Aichinger](#) in Nussdorf, Upper Austria), handouts, refreshments, lunch and dinner, transportation and visits to the waste treatment plants. Upon registration seminar participants accept all accommodation arrangements organised by ISWA.

The conference programme may be subject to change.

The number of participants will be limited to a maximum of 25 persons due to the nature of the programme.

Cancellation

Any cancellation of registration must be submitted in writing to ISWA, Ms Julia Schönherr

- by E-Mail to jschoenherr@iswa.org or
- by Fax to +43 1 253 6001 99.

Cancellation and refund will be subject to the following conditions:

- Cancellation **until June 1, 2013** 50% Refund
- Cancellation **between June 2 and June 22, 2013** 10% Refund
- Cancellation **on June 23, 2013 or "no show"** no refund

Registration may be transferred to a nominated representative.

In case of cancellation of the event due to unforeseeable events, ISWA will refund the registration fee but no other costs incurred prior to cancellation of the Study Tour.

Certificate of Participation

Participants will receive a certificate of participation in the ISWA Study Tour and Practice Seminar "Waste to Energy".

For further technical information see "[White Book Waste-to-Energy in Austria](#)"

For organisational matters please contact Ms Julia Schönherr

ISWA – International Solid Waste Association, www.iswa.org

E-Mail: jschoenherr@iswa.org; **Phone:** +43 1 2536001-11

1080 Vienna, Auerspergstrasse 15/41, Austria



REGISTRATION FORM

Please register with Ms Julia Schönherr

- By Fax **+43 1 253 600 199** or
- By E-Mail: jschoenherr@iswa.org

I hereby register for the following event:

ISWA Study Tour "Waste-to-Energy", June 24 – 28, 2013

*(Recommended arrival: latest June 23, 2013 at [Seminar Hotel Sailer](#) in Innsbruck, Austria;
Train connection or local flights from the International Airport in Munich, Germany)*

Title, First- and Last Name

Company Name/Organisation

Address (Street/Number, ZIP Code, City, Country)

.....
Address for invoice (if different from the company address)

Telephone/Fax: _____

E-Mail: _____

ISWA Member Number: _____

On payment of registration fee, following receipt of invoice, the bank transfer must clearly state the name of the participant and the name of the seminar.

Date:

Signature:

ISWA Study Tour
WASTE-TO-ENERGY