

Look. Listen. Do!  
Intelligent steelmaking.



Look.



Listen.



Do!

## Course Outline

# Environmental Challenges for the Steel Industry



**BSE**  
**ACADEMY**  
Education for Excellence

# Course Outline

## Environmental Challenges for the Steel Industry



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### What it is

A training seminar with systematic repetition/expansion of knowledge for production operators, junior production and maintenance managers respectively fresh graduates – in theory and practice dedicated to environmental facilities in electric arc furnace steel making plants. This training course delivers the necessary technical information needed to manage (understand, lead and make decisions) and operate environmental facilities in a steelmaking plant with the main focus on dedusting systems.

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### Who it is for

Production operators, junior production and maintenance managers, maintenance engineers and fresh graduates responsible for environmental equipment who wish to gain basic and advanced understanding of such systems.

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### What is required

Pre-qualification: Technical background.

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### What is in it

- |                                 |  |
|---------------------------------|--|
| - Tool Box Dedusting Systems    | Operation - Monitoring - Measurement   |
| - Environmental Practice at BSW | Environmental concept - (with DIN ISO 14001/50001 / EMAS)<br>Noise - Radioactivity - Pollutants          |
| - Workshops / Discussions       |  |
| - Add on:                       | Plant visit of Badische Stahlwerke (BSW) + shut-down<br>observation, best practice dedusting maintenance |

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### Duration

1 Week

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### Course language

English

## Detailed Program

Day 1	Day 2	Day 3
Introduction Safety instructions BSW plant tour BSW environmental concept - EN ISO 14001 / EMAS Environmental Management System - EN ISO 50001 Energy Management Systems	Energy balance at EAFs Fluid flow in DED systems Toolbox DED I - Operation DED plants - Ducts / routing - Inlets - Canopy - Water-cooled ducts - Air-cooled ducts - Optimized design Cooling and safety devices - Cooler / HTQ Types of baghouses - Basic particle separation - Filter material - Dust handling / silo - Fans	Toolbox DED II - Monitoring - Pollutants / measurement - Radioactivity - Noise Best Practice Maintenance
Day 4	Day 5	
BSW shut-down - Focus on environmental installations Toolbox DED II Optimization & Simulation - FDM/CE - CFD	By-Products Water treatment technologies  WORKSHOPS  Final discussions	

Look forward to additional evening events that will enrich the program.



# Course Outline

## Environmental Challenges for the Steel Industry



### Your key lecturers

Benjamin Merkle (MBA)

- Mechanical Engineer (B.Eng)
- Project Engineer Environment
- Foundry specialist engineer (VDG)
- MBA (2014)



Since 2013 Benjamin Merkle has been working for BSE as a project engineer environment.

After graduating in 2009, he was working for an engineering company, which was specialized for dedusting and handling systems in foundries. In the year 2011 he graduated as a foundry specialist engineer.

His field of responsibility covers the entire project execution from acquisition, project management to start up and hot commissioning of complete dedusting installations and revampings. The technical side covers off gas treatment; the organisational side contains environmental management systems.

Gerd Plenzig

- Electro-Mechanical Technician
- Project Technician Environment



After his apprenticeship as electro-mechanical technician Gerd Plenzig joined the company Badische Stahlwerke GmbH in Kehl, a sister company of Badische Stahl-Engineering GmbH, Kehl, in 1972. From 1972 to 1997 he worked as electrician / foreman and deputy supervisor on shift. As of 1997 he was responsible for the alloy feeding system, and in 2001 he took over responsibility for the dedusting and alloy feeding system as well as the partial revamping of the dedusting unit in cooperation with BSE. In the years from 2008 to 2014 he supervised the revamping and the start-up of the dedusting system at the BSW steel plant in close cooperation with BSE.

Since 2001 he was on several worldwide foreign assignments for BSE, and in October 2015 he joined BSE as Project Technician in the environmental field.

BSE ACADEMY

Robert-Koch-Straße 13  
D-77694 Kehl/Germany  
Phone (+49) 78 51/877- 114  
Fax (+49) 78 51/877-133  
info@bse-academy.de  
www.bse-kehl.de

