

Onsite workshop on industrial water management

Process water treatment and concentrate handling in steel plants

12 Dec 2024, Düsseldorf, Germany

AIM

Water is a mandatory medium in iron and steel production for cooling applications, material treatment and gas washing processes. Due to climate change, water stress increases and limits the availability of water and change the water composition. This requires innovative approaches, to open up new water sources as blow down and cooling water in combination with an optimisation of the water management by simulations and forecast tools.

The workshop gives an overview on the latest developments for Process water and concentrate handling by opening new water sources as waste waters in iron and steel industry. Innovative research institutes, plant manufactures and companies from metal and steel production industry will give an insight into their latest approaches.

WHO SHOULD PARTICIPATE

- Operating staff / engineers from steel plants
- Staff from innovation departments or production optimization
- Technical purchasing agents in the steel and related industry
- Plant manufacturers for the steel and related industry
- Supplying industry for water reuse technologies

REGISTRATION FEE

Registration fee: 70 €* / 100 € including lunch and beverages

* for staff of the IndiWater, WEISS4PN and KonzentratBiozid projects or employees of member companies and individual members of the Steel Institute VDEh

A cancellation from the seminar is possible until two weeks prior to the start. Then, 25% of the seminar fee must be paid. The total registration amount will be charged for no show or cancellation from the first day of the event.

REGISTRATION / ORGANIZATION

Steel Academy • Steel Institute VDEh

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© BFI: Field trial with BFI test plants at an industrial site

R&D PROJECTS ON PROCESS WATER AND CONCENTRATE TREATMENT IN STEEL PLANTS

The workshop is organised as an activity within EU and German government funded R&D projects. The aims of these projects are to develop and demonstrate technologies and tools under industrial environment for recovery of water, handling of concentrates and optimized water use.

By this scientific event, the steel industry and its related sectors will be informed about the R&D activities and practical results.

ORGANIZERS

The workshop is organized as an activity within the projects IndiWater- "Independent industrial water supply by digitalization, simulation and innovative treatment technologies", WEISS4PN - Integrative application of innovations and digital cooling performance management to reduce water consumption in steel production, and Konzentrat-Biozid – "Closing of cooling water cycles through innovative desalination and biocide production from the resulting concentrates". The projects are funded by the Research Fund for Coal and Steel (RFCS), Federal Ministry of Education and Research and German Federal Ministry for Economic Affairs and Climate Action.

In the projects involved companies, universities and institutes:

- VDEh-Betriebsforschungsinstitut GmbH, Germany
- thyssenkrupp Rasselstein GmbH, Germany
- ArcelorMittal Eisenhüttenstadt, Germany
- Hüttenwerke Krupp Mannesmann GmbH, Germany
- CERAFILTEC Germany GmbH, Germany
- INSTITUTO DE SOLDADURA E QUALIDADE, Portugal
- Luxembourg Institute of Science & Technology, Luxembourg
- SMS group GmbH, Germany
- Technische Universität Berlin, Germany
- Universität Duisburg-Essen, Germany
- WEHRLE Umwelt GmbH, Germany
- aixprocess GmbH, Germany

PROGRAMME

Thursday, 12 December 2024

09:30	Welcome and introduction	13:15	Separation of suspended solids and Zn containing particles with ceramic flat sheet membranes Martin Kaschek
09:45	Fresh water supply – current situation and future perspectives Matthias Kozariszczuk	13:30	Ion separation with membrane-based capacitive deionisation of continuous casting cooling water circuits Benedikt Bosch
10:00	Water use in tine plate production Susanne Kalter	13:45	Discussion with the referents
10:15	Water recovery form waters of the iron and steel industry by reverse osmosis Stefan Schmidt	14:00	Coffee Break
10:30	Discussion with the referents	14:15	Valorisation of concentrates from iron and steel industry and desalting processes Marco Estrela
10:45	Coffee Break	14:30	Concentrate valorisation by production of a disinfection agent Martin Hubrich
11:15	Modelling of the water supply and distribution of an integrated steel work Matthias Werner	14:45	Life cycle assessment of process water and concentrate treatment technologies Maura Carmin
11:30	Simulation of different scenarios and its impact to the process water quality in a site Martin Hubrich	15:00	Discussion with the referents
11:45	Monitoring of Zn content in water and sludges Pavel Ivashechkin	15:15	Network meeting / discussions in BFI testing hall (beverages and snacks)
12:00	Discussion with the referents	18:00	End of the Seminar
12:15	Lunch Break		

SPEAKERS Matthias Kozariszczuk, VDEh-Betriebsforschungsinstitut GmbH, Germany ▪ Susanne Kalter, thyssenkrupp Rasselstein GmbH, Germany ▪ Stefan Schmidt, SMS group GmbH, Germany ▪ Matthias Werner, VDEh-Betriebsforschungsinstitut GmbH, Germany ▪ Pavel Ivashechkin, VDEh-Betriebsforschungsinstitut GmbH, Germany ▪ Martin Kaschek, Cerafiltec Germany GmbH, Germany ▪ Benedikt Bosch, Grünbeck Wasseraufbereitung GmbH, Germany ▪ Marco Estrela, INSTITUTO DE SOLDADURA E QUALIDADE ISQ, Portugal ▪ Martin Hubrich, VDEh-Betriebsforschungsinstitut GmbH, Germany ▪ Maura Carmin, Luxembourg Institute of Science & Technology

HOTELS NEARBY

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