Environmental Solutions: Meeting EPA Air Emission Requirements
16–18 October 2017
Indianapolis, Ind., USA
Sheraton Indianapolis City Centre
About the Program

Challenging EPA pressures, a changing workforce and increased market demands are some of the hurdles facing the steel industry. Attendees will be presented with design, operation and maintenance requirements for air emissions capture systems. Case studies will be reviewed that highlight real-world pitfalls and problems, and solutions will be presented to rectify the deficiencies in these systems. Additional presentations will be given on data gathering and understanding various compliance tools to ensure environmental personnel can gauge the effectiveness of their systems and respond to EPA regulators in an effective manner.

Who Should Attend

This course is aimed at engineers, operators and maintenance staff, as it presents technologies and equipment available for air emissions capture in iron and steel manufacturing.

Organized By

AIST’s Environmental Technology Committee.
Monday, 16 October 2017

7 a.m.
Registration and Breakfast

8 a.m.
Introductions

8:15 a.m.
Understanding the EPA and How They Are Enforcing Today’s Air Emission Requirements
Michael Brooks, Steel Dynamics Inc. – Engineered Bar Products Division
Discussion of recent regulatory approaches to air compliance at steel mills.

9 a.m.
Capture of Pollutants — Thermodynamics, Plume Behavior and Collection Hoods
Dejan Zrelec, Tenova Goodfellow Inc.

10 a.m.
Break

10:15 a.m.
Heat Transfer, Control, and the Impact on System Design and Operation
Bill Allan, Ramboll Environ
Review of the heat transfer considerations for a fume control system design for EAF and BOF steelmaking operations. Process control parameters and their effect on performance will also be reviewed.

11 a.m.
Keys to Effective Evaporative Gas Cooling for Hot Process Gas
Gordon Janes, JAGO Environmental Technologies
Finely atomized water sprays evaporate completely to cool the gas. The keys to success are thermal aspects, drop size calculations, nozzle design, gas flow dynamics, and correct design of pumping and controls.

11:45 a.m.
First Draft of Trip Report

Noon
Lunch

1 p.m.
Fan Fundamentals
Vern Martin, Flowcare Engineering Inc.

2 p.m.
Retrofitting Higher-Efficiency Fans
Dan Banyay, Robinson Fans

3 p.m.
Break

3:15 p.m.
Overview of Control Technologies — What Is Used and Why
Ray Tedford, Schust Engineering Inc.

4:15 p.m.
Panel Discussion

5 p.m.
First Day Wrap-Up

6 p.m.
Reception

Tuesday, 17 October 2017

7 a.m.
Breakfast

8 a.m.
Introduction

8:15 a.m.
Compliance Strategies for Air Emission Requirements as They Relate to Integrated Mills
Thomas Maicher, ArcelorMittal USA
A review of techniques and tools used to simplify and standardize requirements for operations and drive continual improvement toward superior compliance.

9:15 a.m.
Improving Baghouse Operations
Mike Allen, Parker Hannifin Corp.
This presentation will discuss the importance of understanding air pollution control equipment and how to detect and prevent potential problems before they become visible emissions or restrict production.
10 a.m.
Break

10:15 a.m.
Mechanical Dust Transport
Trevin Berger, Martin Sprocket & Gear Inc.
Mechanical conveying equipment to convey baghouse dust to include, but not limited to, screw conveyors, drag chain conveyors, rotary valves and double-dump valves.

11 a.m.
Baghouse Filtration Media — Types, Selection, Failure and Steps to Optimizing Performance and Life
Larry Brown, BWF Envirotec
Discussing the types of filter media used in the metals industry and the selection criteria, solutions for the most common types of bag failures, and ways to optimize bag performance and life.

11:45 a.m.
Lunch

1 p.m.
Overview and Evolution of Broken Bag Detectors — Can This Help Meet EPA Requirements?
Earl Parker, Auburn Systems LLC
Evolution of broken bag detectors into bag leak detection systems and how they are a valuable maintenance and diagnostic tool. Complying with U.S. Environmental Protection Agency requirements and providing savings on operation and maintenance cost.

2 p.m.
Applied Industrial Ventilation — How This Can Impact EPA Requirements and Operation and Maintenance Cost
Ray Tedford, Schust Engineering Inc.

3 p.m.
Break

3:15 p.m.
CFD Modeling for System Upgrades: What Else to Consider?
Dejan Zrelec, Tenova Goodfellow Inc.

4 p.m.
Quantification of Emissions From Steel Shop
Kyle Edwards, ArcelorMittal Dofasco Inc.
A summary of different methodologies to estimate or quantify emissions from steel shops, with references to benchmarks where available.

4:45 p.m.
Trip Report

5:15 p.m.
Conclusion

5:30 p.m.
Adjourn

Wednesday, 18 October 2017

7 a.m.
Breakfast in conjunction with Environmental Technology Committee Meeting

8:30 a.m.
Depart for Plant Tour of Steel Dynamics Inc. – Engineered Bar Products Division

Noon
Return From Plant Tour and Adjourn
Registration

AIST Members

**US$845** by 4 September 2017
**US$945** after 4 September 2017

Non-Members

**US$1,060** by 4 September 2017
**US$1,160** after 4 September 2017

Registration Includes

Reception, breakfast and lunch Monday and Tuesday, continental breakfast Wednesday, plant tour with bus transportation, and a course workbook or flash drive including presentations.

Hotel Accommodations

A block of rooms has been reserved at The Sheraton Indianapolis City Centre. Please call the hotel at +1.888.627.8186 by 24 September 2017 to secure the AIST discount rate of US$164 per night for single/double occupancy.
Upcoming Events

> Managing Technology — Big River Steel
  12–14 September 2017
  Sheraton Memphis Downtown Hotel > Memphis, Tenn., USA

> Sheet Processing and Finishing Lines — A Practical Training Seminar
  17–21 September 2017
  Ann Arbor Marriott Ypsilanti at Eagle Crest > Ypsilanti, Mich., USA

> Material Handling and Transportation Logistics
  10–12 October 2017
  The Seelbach Hilton > Louisville, Ky., USA

> Continuous Casting — A Practical Training Seminar
  16–19 October 2017
  Courtyard by Marriott > Fort Wayne, Ind., USA