



# CASE STUDY

INDUSTRY: STEEL



**CUSTOMER:** ArcelorMittal Steel North America

**LOCATION:** Weirton, West Virginia; Warren, Ohio; Cleveland, Ohio

**BACKGROUND:** Since 1958, Armstrong International has been sharing our steam, air, and hot water system knowledge with tens of thousands of customers around the world to help them keep up with changing technologies and effectively maintain their thermal utility systems.

**SCOPE OF WORK:** Since June 2011, Armstrong Engineers and Site Supervisors have conducted Steam Safety & Best Practices Training for ArcelorMittal personnel throughout three locations.

The comprehensive training includes:

- Steam Fundamentals: Steam Cycle, Sensible/Latent Heat, Steam Quality, Water Chemistry & Corrosion, Heat Transfer, Condensate
- Steam Hazards (Water Hammer)
- Steam System Start-up & Shut-down: Boiler Systems, Distribution Systems
- Best Practices: Labeling, Line Tracing (System Walk-Through), Personal Protective Equipment, Emergency Response Planning, Procedure Development & Management
- Quizzes & Evaluations

Armstrong initiated training in June 2011 and has continued to offer training seminars to various locations in North America.

**BENEFITS:** By implementing Armstrong's Steam System Training as the standard training program in various plants, ArcelorMittal has recognized invaluable wealth since employees are more knowledgeable. Since June 2011, over 1,000 ArcelorMittal employees have completed Armstrong's Steam System Training.

