ABOUT THE COURSE
This seminar will provide attendees with a broad understanding of the role of pipe and tube in the growing energy markets. The presenters will begin with basic discussions of formations and plays in North America and how advances in drilling and fracking processes are changing the industry. Attendees will also learn about the various manufacturing methods for producing pipe and tube, as well as how steelmaking chemistry is responding to the challenges and opportunities presented by deepwater and horizontal drilling. Presentations will include safety, threading, non-destructive testing, electric resistance welding, heat treating and coating systems.

WHO SHOULD ATTEND
This training seminar is designed for anyone interested in gaining a better understanding of the opportunities for pipe and tube products in today’s changing energy market. This includes steel mill personnel, i.e. mill managers, metallurgists, engineers, sales, maintenance; pipe mill personnel, i.e. mill managers, metallurgists, engineers, sales, maintenance; and the energy sector, i.e. managers, petroleum engineers, material science engineers, drilling supervisors, purchasing managers, mid-stream managers, line pipe construction managers.

SCHEDULE OF EVENTS
MONDAY, 8 SEPTEMBER 2014
4 p.m.
Registration

TUESDAY, 9 SEPTEMBER 2014
7 a.m.
Registration and Continental Breakfast
8 a.m.
Introduction
David Johnson, Paragon Industries Inc.
8:05 a.m.
TMK and Global Energy Trends
Piotr Galitzine, TMK IPSCO
This presentation will address trends and revolutions in hydrocarbon production worldwide, as well as new developments in horizontal shale drilling, the emergence of the USA as a liquefied natural gas exporter, the oil sands and their strategic importance to America. Revolutionary trends in offshore, including gas production from frozen methanes and sub-sea mining for copper ore, will be covered. These trends will be put into perspective with regard to world trade and geopolitical influence.
8:45 a.m.
Break

9 a.m.
**ERW Pipe Manufacturing Process**
Nelson Abbey, Fives Bronx

10:20 a.m.
Break

10:30 a.m.
**Seamless Pipe Production for the Energy Markets**
Albert Klimas, SMS Meer GmbH
An overview of the most common production processes employed in the supply of seamless steel pipes and tubes for the energy market will be given, starting with the meltpshop and ending with the bundling systems for transporting pipes. The road from the scrap yard to the oil field is long, with many interesting stops along the way.

Noon
Lunch

1 p.m.
**The Spiral Welding and Manufacturing Process**
Hartwig Hiestermann, Danieli W+K
Explanation of the two-step process for the production of spiral pipes by means of executed mills (photographic documentation supported by video sequences), focusing on the conditions necessary to guarantee consistently high-quality spiral-welded pipes.

2:15 p.m.
Break

2:30 p.m.
**Midstream Fundamentals of Line Pipe Design, Installation and Operation**
Kurt Rushmore, Major Pipeline

3:30 p.m.
Break

3:45 p.m.
**High Frequency Welding and Induction Heating**
Lesley Frame, Thermatool
This session introduces basic ferrous metallurgy as it pertains to high-frequency welding and induction heating of tube and pipe products. Process parameters and process control for high-frequency welding will be covered, as well as fundamentals and process control with induction heating applications.
10:45 a.m.

**Overview of Threaded Connections for Oil Country Tubular Goods**
Richard Griffin, U. S. Steel Tubular Products Inc.

This presentation includes an overview of the different types of threaded connections, including API, semi-premium and premium used for oil country tubular goods. A discussion of the features and benefits for each type of connection, along with optimal performance and service applications, will also be presented.

Noon
Lunch

1 p.m.

**Non-Destructive Testing — Overview of NDT Methods Used Today**
Hilton Prejean, NOV Tuboscope

Details of non-destructive testing (NDT) methods and how NDT is applied to today’s oil field tubular products. EMI, UT, MPI and visual are a few inspections performed daily to detect imperfections and defects in new pipe.

2:25 p.m.
Break

2:30 p.m.

**Coating Systems for Line Pipe — A Fundamental Review of Available Coating Systems**
Samuel Attaguile, 3M Co.

This session will focus on various types of coating systems used on modern line pipes in the U.S. and globally. In addition, there will be a brief overview on corrosion, corrosion protection means and methods utilizing coatings. Finally, an overview of the types of specifications referenced for coatings used in the line pipe industry will be given.

3:30 p.m.
Break

3:45 p.m.

**Responsible Resource Development Through Hydraulic Fracturing**
Bob Garland, TETRA Technologies Inc.

This talk will cover the cementing and completion process in the responsible completion of a horizontal Marcellus well. The discussion will cover the cementing, perforating, hydraulic fracturing and flowback of a horizontal well.

5 p.m.
Adjourn

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**THURSDAY, 11 SEPTEMBER 2014**

7 a.m.
Continental Breakfast

8 a.m.
**Depart for Plant Tour**

9 a.m.

**Plant Tour of TMK IPSCO, Ambridge Plant**

- Seamless rolling mill
- OD size range 2.375 to 6.050 inches
- Wall range 0.154 to 0.600 inch
- Rotary furnace for 6.5-inch round billets from Koppel Works
- Mannesmann rotary barrel-type piercer
- Floating mandrel process — 8 stands
- Reheat walking beam furnace
- Stretch reducing mill — 22 stands
- Walking beam cooling bed – 150 feet in length
- Carbide saws — gang-cut crop and cut-to-length

Noon
Seminar Adjourn

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**REGISTRATION FEES**

Advance registration by 28 July 2014: Member US$745, Non-member US$960. Registration after 28 July 2014: Member US$845, Non-member US$1,060. Registration fees include continental breakfasts, lunches, and continuous breaks Tuesday and Wednesday, reception Tuesday, continental breakfast Thursday, plant tour and a course workbook.

>> REGISTER NOW

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**COMPANY DISCOUNT**

Three or more individuals from the same facility attending any one seminar can receive a 10% discount per person. All registrations must be received together along with payment to qualify for the discount. Not applicable with any other discount.