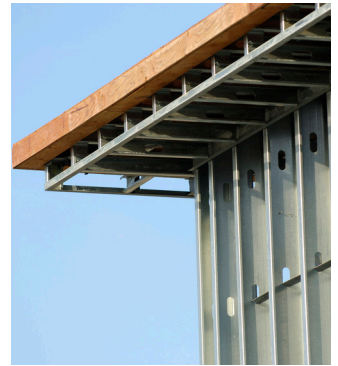
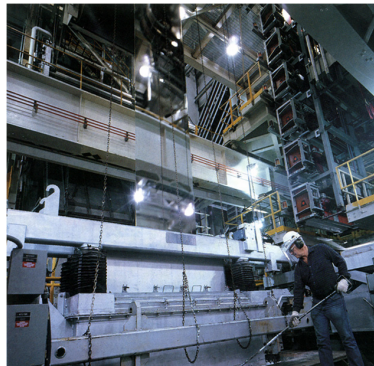


HOT-DIP GALVANIZED SHEET PRODUCTION COURSE



JUNE 9-11, 2010

RADISSON HOTEL AT STAR PLAZA
MERRILLVILLE, INDIANA USA



SPONSORED BY
THE GALVINFO CENTER
& THE INTERNATIONAL ZINC ASSOCIATION

About this Course

This course provides a comprehensive overview of hot dip galvanized sheet production. The course covers coating line production processes, including seam welding, cleaning, annealing, coating weight control, galvannealing, post galvanizing surface treatments, as well as zinc bath management principles and technology.

The course deals primarily with the operation of continuous galvanizing lines, including the metallurgical processes involved. A review and listing of key process variables is included. Time will be allowed in each module for questions, along with general questions at the end of the course.

Who Should Attend?

Anyone interested in expanding their knowledge of the basic principles of galvanized steel sheet production. The course is especially beneficial to process engineers, maintenance personnel, production operators, and process related quality assurance staff. R&D engineers, technical sales people, and anyone whose job requires knowledge of how coated sheet is made will benefit. Equipment manufacturers and industry service suppliers can also benefit from this course.

Course Registration

The course advance registration fee by May 14, 2010 is US\$595. Registration after May 14th is US\$695. The registration fee includes a welcoming reception Wednesday evening, lunches, and coffee breaks during the two-day course. . Reservations at the Radisson include a \$10 coupon for breakfast. Attendees will also receive a USB flash drive containing all the presentations, along with handouts of the speaker slides.

Registration materials will be available on-line at <http://www.galvinfo.com> by February 26, 2010

Hotel Accommodations

A block of rooms has been reserved at the Radisson Hotel at Star Plaza, 800 East 81st Avenue, Merrillville, IN 46410 at a special GalvInfo/International Zinc Association rate of \$125/night. Reservations can be made directly with the hotel at 219-769-6311 or 1-800-333-3333, or at www.radisson.com/merrillvillein.

Please reference the Group Code: "IZAIZA" to receive the negotiated room rate. The hotel cut-off date for the room block is May 9th. Room availability and rates cannot be guaranteed after this date.

Registration Confirmation

Kindly allow 1-2 weeks for registration forms to be processed after they are received. Registrants will receive confirmation by email, followed by post. If you do not receive your confirmation please contact Gary Dallin at (888) 880 8802.

Cancellation / Substitution

Cancellations and registration refunds will be accepted up until May 21st subject to a US\$50 administrative fee. All cancellations must be received in writing prior to the cut-off date. Substitutions are acceptable provided a new registration form is received prior to May 28th.

Course Director - Gary W. Dallin, P. Eng.

Gary Dallin has 42 years of experience with galvanized and prepainted steel sheet products acquired while working as a metallurgist for Stelco Inc. in Hamilton, ON, Canada. Gary held numerous positions in the coated product area including Manager, Metallurgy and Quality Assurance, Cold Roll & Coated Products, Senior Product Metallurgist-Coated, and Manager of Customer Service Metallurgy. Gary is Director of the GalvInfo Center, is a registered Professional Engineer in the Province of Ontario, and is President of his own consulting company, Steel Technology Services Inc. in Burlington, ON. He was 2004-2009 chairman of ASTM Committee A05 on Metallic-Coated Iron and Steel Products.

Course Elements

Wednesday, June 9, 2010 – Registration 4 pm – 6 pm

Thursday, June 10, 2010

MORNING SESSION 8:30 A.M. - NOON

Introduction: *Doug Rourke, International Zinc Association*

Hot Dip Coating – Process Overview: *Gary Dallin, The GalvInfo Center*

The continuous hot-dip galvanizing process is a closely controlled sequence of steps. The process will be outlined in its entirety so that the student can understand how the subsequent course presentations fit together.

Galvanizing Line Operations – Welding, Cleaning, and Annealing: *Steve Hesling, ArcelorMittal*

The fundamentals of coating line operations prior to the strip reaching the coating section will be explained.

Hot Dip Galvanizing Bath Chemistry & Control: *Martin Gagne, Xstrata*

Central to the entire hot-dip coating process is the bonding reaction between the steel and coating metal. A thin layer of zinc is diffusion-bonded to the steel allowing the sheet to be formed into many shapes without loss of coating adhesion. This reaction, and how to control it, receives considerable attention in this module.

AFTERNOON SESSION 1:00–4:45 P.M.

Hot Dip Galvanizing Bath Chemistry & Control (cont.): *Martin Gagne, Xstrata*

Tools for Bath Chemistry Control: *TBA, Teck*

The ability to quickly and accurately measure zinc bath variables, and to respond appropriately is vital to producing high quality hot-dip sheet products. The tools and procedures to provide this important input to line operations are covered.

Galvannealing – Process & Product: *Peter Dalgleish, CMI Groupe*

The process requirements needed to produce high quality galvanneal, along with the metallurgy and microstructure of this coating will be reviewed.

Question and Answer Session

Friday, June 11, 2010

MORNING SESSION 8:30 A.M. - NOON

Coating Weight Control & Air Knives: *Robert Wilhelm, Objective Control Ltd.*

Air knives are an integral part of the hot-dip coating process and the many facets of how these systems operate will be presented. The focus will be on optimizing control of coating weight.

Zinc Bath Hardware: *Frank Goodwin, International Zinc Association*

Molten zinc is very corrosive to the submerged hardware in a zinc bath. Much work is underway to improve the life of pot equipment and will be reviewed in this session.

AFTERNOON SESSION 1:00–4:45 P.M.

Galvanizing Line Operations – Temper Rolling, Leveling, Oiling, Passivating, and Coiling:

Steve Hesling, ArcelorMittal

The fundamentals of the finishing operations on a modern coating line are covered.

Hot Dip Galvanize Products – Defects & Their Avoidance - *TBA, U.S. Steel*

Achieving good surface quality is a key part of galvanized sheet production. Common problems will be reviewed along with actions that can be taken to avoid them.

Review of Key Process Indicators: *Gary Dallin, GalvInfo Center*

A review of the key process indicators that need constant monitoring to ensure minimum downtime and high product quality.

Question and Answer Session

IZA/GalvInfo Center – Hot-Dip Galvanized Sheet Operations Course Program

June 9-11th, 2010 Radisson Hotel at Star Plaza, Merrillville, IN

Wednesday, June 9, 2010	Registration 4 PM – 6 PM	Reception 6 PM – 8 PM
Thursday, June 10, 2010 Registration 7:30 – 8:30 AM	MORNING SESSION	AFTERNOON SESSION
	8:30 – 8:45 Introduction – <i>Doug Rourke</i>	1:00 – 1:45 HD Bath Chemistry and Control II – <i>Martin Gagne</i>
	8:45 – 9:45 Product and Process Overview – <i>Gary Dallin</i>	1:45 – 2:30 Tools for Bath Chemistry Control I – <i>TBA</i>
	9:45 – 10:00 BREAK	2:30 – 2:45 BREAK
	10:00 – 11:15 Galvanizing Line Operations – Welding, Cleaning, Annealing – <i>Steve Hesling</i>	2:45 – 3:30 Tools for Bath Chemistry Control II – <i>TBA</i>
	11:15 – NOON HD Bath Chemistry and Control I – <i>Martin Gagne</i>	3:30 – 5:00 Galvanneal – Process and Product – <i>Peter Dalglish</i>
Friday, June 11, 2010	8:30 – 10:00 Coating Weight Control & Air Knives I – <i>Robert Wilhelm</i>	1:00 – 2:30 Coated Sheet Defects and Their Avoidance – <i>TBA</i>
	10:00 – 10:15 BREAK	2:30 – 2:45 BREAK
	10:15 – 11:00 Coating Weight Control & Air Knives II <i>Robert Wilhelm</i>	2:45 – 4:00 Galvanizing Line Operations – Temper Rolling, Leveling, Oiling, Passivating, Coiling – <i>TBA</i>
	11:00 – NOON Zinc Bath Hardware – <i>Frank Goodwin</i>	4:00 – 4:30 Review of Key Process Indicators – <i>Gary Dallin</i>
		4:30 – 4:45 Question & Answer Session

Registration Fee – US\$595 until May 21, 2010, \$695 after May 21