Industrial Aluminum Electrolysis

The definitive course on the theory and practice of primary aluminum production

September 17-21, 2007
Le Merigot Hotel • Evansville, Indiana, USA

What This Course Offers

- Theoretical and practical aspects of primary aluminum production
- An understanding of the electrolysis process
- Overview of the state of the art
- On-site visit to Alcan Sebree Works

Participate in group discussions and learn to solve technical problems at aluminum smelters:
- Diagnosis and treatment of problem pots
- Heat balance applied to pot operation

Course Goals

- To promote more efficient operation of aluminum smelters
- To stimulate corresponding research and development

Who Should Attend

- Technical and project managers
- Supervisors and operators of Hall-Heroult cells
- Contributors to the development of primary aluminum production technology
- Others interested in aluminum production

For More Information

Christina Raabe
TMS Technical Programming and Continuing Education Manager
(724) 776-9000, ext. 212 / (800) 759-4TMS
raabe@tms.org
Course Topics

1. Alternative Aluminum Production Processes
2. Alumina Quality and Solubility
3. Analysis of Potroom Data
4. Anodes
5. Anode Cover and Anode Rod Damage
6. Anode Effect Mechanism and Emissions
7. Bath Chemistry
8. Carbon Dust in Pots
9. Cathode and Cathode Materials
10. Cell Operations
11. Challenges in Increasing Line Current and Cell Productivity
12. Current Efficiency Improvements and Optimization
13. Diagnosis of Problem Pots
14. Evolution of Prebake Cell Design and Technology
15. Fluoride Emissions
16. Heat Balance
17. Increasing Pot Productivity
18. Magneto-hydrodynamics
19. Measurement Techniques for Pot Analysis
20. Metal Purity
21. Perfluorocarbon Emissions
22. Pot Productivity
23. Pot Operational Diagnostics
24. Pot Tuning Optimization
25. Practical Application to Operations
26. Principles of Aluminum Electrolysis
27. Process Control Strategy
28. Safety in the Primary Aluminum Industry
29. Tour of Aluminum Smelter

Course Presenters

Michael Barber
Alcan Inc., Canada
Dick Jeltsch
Consultant, USA
Erik Jensen
EAJ Consulting, USA
Halvor Kvande
Hydro Aluminium, Norway
Steve Lindsay
Alcoa Inc., USA

Vinko Potocnik
Consultant, Canada
Alton Tabereaux
Alcoa Inc., Retired, USA
Gary Tarcy
Alcoa Inc., USA
Mark Taylor
University of Auckland, New Zealand
Barry Welch
Welbank Consulting, New Zealand

Registration

Register early – class size is limited!

Your tuition fee of $1,850 (U.S. Dollars) includes:
1. 4-1/2 Day Course (Monday through Thursday, 8 a.m. to 5 p.m.; Friday, 8 to 11:30 a.m.)
2. Smelter Tour
3. Course Notes
4. Welcome Reception (Sunday evening)
5. Breakfast Daily
6. Lunch Daily
7. Refreshment Breaks
8. Closing Reception/Dinner (Thursday evening)

Complete the application in this brochure and return with payment before August 15 to:
The Minerals, Metals & Materials Society
184 Thorn Hill Road, Warrendale, PA 15086 USA
Fax: (724) 776-5770
Or register online at www.tms.org/education/continuingeducation.html.

Lodging

Lodging is available at Le Merigot Hotel in Evansville for $109 a night (U.S. Dollars) plus tax for single or double occupancy. Make your reservations before August 15 to receive this special rate.
Telephone: (800) 342-5386 / (812) 433-4000 (outside the United States)

Industrial Aluminum Electrolysis • September 17-21, 2007

Name ____________________________________________
Job Title ________________________________________
Company ________________________________________
Street ___________________________________________
City __________________________ State _______________
Zip/Postal Code __________________________ Country _______________
Telephone __________________________ Fax ________
E-mail __________________________ Job Responsibility __________ Production ________ R&D ________

Education

Topics of Specific Interest

Tuition Payment: $1,850 (U.S. Dollars)

☐ Check or Money Order (payable to The Minerals, Metals & Materials Society, in U.S. dollars drawn on a U.S. bank.)
☐ VISA  ☐ MasterCard  ☐ Diners Club  ☐ American Express

Card No. __________________________ Exp. Date ____________
Cardholder Name __________________________
Cardholder Signature __________________________

Cancellations: TMS reserves the right to cancel this course due to low registration; registrants will be notified at least 10 days prior to the course date and receive full refunds. If a registrant must cancel, TMS must be notified in writing before Aug. 15, 2007; tuition will be refunded less a $75 processing fee. No refunds will be processed after Aug. 15, 2007.