

Project Development Committee Updates:

New Materials – Metals PDC – Two new project teams formed within the New Materials PDC – Metals Section as follows:

1. Metal Dusting Materials – This group will be looking at testing new materials and coatings under metal dusting conditions.
2. Hydriding of Titanium – This group will be collecting service information on hydriding of titanium with the plan to study the mechanism involved.

If you are interested in joining either of these groups please contact the office in St. Louis at mtiadmin@mti-global.org or 314-576-7712.

Project Team Updates:

Transport Containers (kr) – Ed Naylor, Champion – This potential project has been on the books since 2001. We tried to get the railroad people interested in exploring other materials but to no avail. The group felt that Isotainers and truck transports were probably of more interest than railcars. We need to decide if this is still of interest to TAC to pursue. Therefore, if you have an interest to continue this project, please let Galen Hodge know by email (ghodge@mti-global.org) as soon as possible, and either a conference call will be scheduled to consider further action or we will drop the subject from consideration.

Incident Assessment (169-05) – The Incident Assessment project team reviewed progress on the revision of the Fire and Explosion Assessment manual. The author, Dale McIntyre, suggested the addition of several topics to manual. The additions will require additional time to complete the revision. The project team agreed to a time extension for revision of the manual. The next draft of the revision is targeted for the February 2007 MTI meeting.

TAC Meeting Presentations:

- (1) Japanese Chemical Process Industry Initiative to Improve the Safety and Reliability of their Plants – Dr. Masao Nakahara / ASAHI KASEI Engineering
- (2) MTI Project Management Process – Gene Liening / Dow

Japanese Delegation:

We will have three individuals at the TAC meeting that are part of the ENAA (Engineering Advancement Association of Japan) delegation that will be meeting with the MTI Board on Friday. The ENAA delegation will be making several visits in the US to discuss how the aging of plants in the chemical industry is being monitored. They have had a significant increase in the number of safety related incidents in Japan and have been commissioned to make suggestions as to how these can be reduced. The whole delegation is as follows:

Dr. Shigeo Tsujikawa	Emeritus Professor of the University of Tokyo
Mr. Koji Asakura	Engineering Advancement Association of Japan (ENAA)
Dr. Koji Kawano	Idemitsu Engineering Co. Ltd
Mr. Masaya Yano	Sumitomo Chemical Co. Ltd.
Dr. Masao Nakahara	Asahi Kasei Engineering Corp.
Dr. Masazumi Miyazawa	Mitsubishi Chemical Corporation
Mr. Saburo Nagata	Consultant, Corrosion Center, JSCE
Dr. Katsumi Yamamoto	JGC Corporation

Upcoming MTI Meetings:

- **TAC 92** – February 26 – March 2, 2007 at San Luis Resort, Galveston, TX
- **EuroTAC 2007** – Date and location to be determined
- **TAC 93** – June 4-7, 2007 – Minneapolis Airport Marriott, Minneapolis, MN
- **TAC 94 – October 22-26, 2007** – Crowne Plaza, Hilton Head Island, SC
- **TAC 95** – February 2008, Radisson, St. Petersburg, FL

EuroTAC for 2007 Information:

In an attempt to plan the next EuroTAC meeting to fit the needs of our European members, an email survey will be sent to everyone that has attended a previous meeting requesting their input. The date for the meeting will also be on that questionnaire in an attempt to miss as many plant outages as possible. The date for the next meeting will be announced as soon as the survey is completed.

MTI Meeting Attendance Statistics:

- 90 Total Attendees
- 41 Member Companies
- 5 Potential Members:
 - J. Karol Argasinski / Solvay Solexis
 - Dawn Eden / Honeywell Process Solutions
 - Timothy Pepper / Ashland Chemical
 - Anand Samant / Praxair Inc.
 - John Wolodko / Alberta Research Council
- Special TAC Guests:
 - Dr. Masao Nakahara / ASahi KASEI
 - Mr. Masaya Yano / Sumitomo Chemical
 - Dr. Masazumi Miyazawa / Mitsubishi Chemical
 - Mr. Kenji Kaneko / Mitsubishi Materials
 - Sharon Robinson / Oak Ridge National Laboratory
 - Kirk Richardson / KRMC

Success of MTI Titanium Project Recognized by

ASTM – The strength requirements for the most commonly used grades of titanium are based on data generated 40-50 years ago. MTI member companies realized that updating these data would increase the minimum strength requirements for these alloys. This would increase the allowable stresses for these grades and reduce the amount of titanium needed plant equipment by as much as 16% in some cases. This is an especially desirable outcome in light of today's high cost for titanium products.

MTI hired MC Consulting's Jim McMaster, who assembled more than 5000 data points proving that the old ASTM Standards underestimated the strength of titanium alloys. MTI's reputation and prestige along with Jim McMaster's knowledge of the data and the workings of the ASTM Committees led to changes in the ASTM Standards as well as changes in the ASME allowable stresses for these materials.

The story behind this project was published by ASTM in their monthly journal, "ASTM Standardization News," which can be found at line at http://www.astm.org/cgi-bin/SoftCart.exe/SNEWS/OCTOBER_2006/mcmgre_oct06.html?E+mystore

Additional information on this project can be obtained from Barry Greene, an Associate Director of MTI. (973-625-0226 and bgreene@mti-global.org).

ANL Annual Report 2005 – Development of Materials Resistant to Metal Dusting Degradation is posted on the MTI Website under the Metal Dusting Project.

Chemical Industry Vision2020 Partnership Annual Report 2004 is available at the MTI meeting registration table outside of the meeting rooms.

Titanium: Recent Developments – The September issue of JOM, vol 58, #9, 2006, contains four articles on recent developments for titanium. The articles include Vacuum Plasma Spraying as a new concept in manufacturing Ti-6Al-4V structures, Potential Applications of Titanium Metal Powder, and two articles on microstructure of Titanium and Titanium Alloys. The two articles on new concepts in manufacturing of titanium based structures suggest that these techniques may allow titanium to be increasingly competitive with more traditional materials such as stainless in some applications.

Out of Print MTI Publication "Atlas of Corrosion and Related Failures" has been scanned into a PDF document. This atlas, sponsored by MTI, and compiled by the Fulmer Research Institute in 1987, charts an investigation into a material failure in a plant component starting from the request to conduct the investigation and ending with the submission of the report.

The investigator is guided step by step through the investigational processes, which reveal the origin and cause of failure and the logical processes by which the conclusions are reached and verified. Sampling and laboratory procedures are listed.

Illustrations are provided of the characteristic appearance of material, which has failed by corrosive and interactive mechanisms. Study of these, together with notes on differentiation, causes, remedies and failures not due to environmental attack enables the failure mechanism to be recognized and its recurrence averted.

Logging and reporting procedures are recommended.

A CD of this publication will be provided to each member company who requests a copy from the St. Louis MTI office at mtiadmin@mti-global.org or 314-576-7712.

MTI Publications: To order MTI publications, click on the Store tab of the MTI website (<http://www.mti-global.org>). Be sure to place your order from the MTI Member Order Area to receive the member discount of 50% off the list price. You may also submit an order by contacting Mike Ross at 304-522-0086 or rossbus@aol.com.

