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## ISO TC 107 Summary Of Activities for 2002

This report was prepared for the AESF Board of Directors meeting at Daytona Beach, FL, February 2003, and summarizes the 2002 activities of ISO TC 107, *Metallic and Other Inorganic Coatings*. It describes the meetings that were held in Orlando, FL, at the beginning of the year, and future plans. Background information is provided below for new members of the board and others who may not be familiar with this activity.

### Background Information

ISO Technical Committee 107, formed in the early 1960s, is the international group responsible for developing standards for the metal finishing industry. Its scope encompasses metallic and inorganic coatings of all kinds (*except paint*) produced by electroplating, electroless processes, porcelain enameling, thermal spraying, anodizing, and chemical vapor deposition. Its scope is similar to that of ASTM Committee B 8, which provides technical support for the work of TC 107. For example, the U.S. delegates to committee meetings are members of ASTM Committee B 8 who are also members of AESF.

The members of ISO (and the committee) are *countries*, not individuals. The U.S., however, does not have one government-supported national standardization body, but relies on private organizations like ASTM, SAE and others to develop technical standards. As a result, the American National Standardization Institute (ANSI) was created many years ago to coordinate the international standardization activities of private groups. ASTM is a member of ANSI, and ANSI in turn is the official member of ISO. ISO is supported by fees paid by member countries (by ANSI in the case of the United States). ANSI is partly supported by the government, but most of

its budget is comprised of fees that it collects from individual committees like ours, and by private groups like ASTM.

In the case of TC 107, AESF has paid the fees to ANSI since about 1995, currently about \$12,500 annually. AESF pays these fees on behalf of the metal finishing industry and as part of its mission to provide technical and educational services to that segment of industry. This has made it possible for the United States to maintain the Secretariat of TC 107 and continue to work towards the development of uniform technical standards that are applied globally. In recent years, ISO/TC 107 has developed some standards jointly with CEN, the European regional standardization body, to ensure that those standards are technically valid, promote quality and foster free trade.

### ISO/TC 107 Orlando Meeting

The final arrangements for ISO Technical Committee 107, *Metallic and Other Inorganic Coatings*, to meet in Orlando, FL, were made about a month before the attack on the New York World Trade Center. After the attack, we seriously considered re-scheduling the meeting because it was assumed that many delegates would be reluctant to travel internationally. But after much debate, we decided to go ahead with the meeting as planned.

**Attendance Better Than Expected.** The technical meetings were held at the Doubletree Castle Hotel, from January 31 to February 5, 2002. Twenty delegates representing eight member countries were in attendance, including the U.S., U.K., Poland, Germany, South Africa, Czech Republic, Korea and Portugal. The two delegates from Korea attended for the first time. Although the attendance was slightly less than at the previous meeting in Cape

Town, South Africa, the turn-out was better than expected, considering the dangerous world situation.

**Subcommittee Meetings.** The following subcommittees met to discuss new and revised standards on terminology, general test methods, electrodeposited coatings and related finishes, and corrosion testing, as well as new documents on EMI shielding and hydrogen embrittlement:

- The Secretariat of SC 1, *Terminology*, is vacant as a result of Switzerland's decision to relinquish the administration of this subcommittee. Nevertheless, SC 1 convened in Orlando to discuss ISO 2080, a new and revised vocabulary document. Many comments were received from member countries. It was decided to further revise the document and submit it to the ISO Central Secretariat for final vote. The document should be finished sometime in 2003.
- The Secretariat of SC 2, *General Test Methods*, is held by the U.K. The work of this subcommittee is expected to proceed smoothly now that a new, permanent secretary has been appointed by BSI. Standards that are being revised include test methods for measuring thickness by microscopical, coulometric, spectrometric and other methods.
- The Secretariat of SC 3, *Electroplated Coatings and Related Finishes*, is held by the U.S. Revised standards that are near the publication stage include ISO 1456 on decorative nickel plus chromium coatings; ISO 1458 decorative nickel coatings (without chromium topcoats); ISO 4525 on decorative nickel plus chromium coatings on plastics, and ISO 4527 on electroless nickel. We expect these to be published early in 2003. In addition, the standards on engineering nickel (ISO 4526) and

engineering chromium (ISO 6158) are at an advanced stage. Revised standards on zinc, cadmium, silver and gold coatings are also being completed, but discussions at the meeting suggested that the zinc document contains technical errors and that the gold document does not reflect the newest technology. The working groups responsible for those documents will look at them once again.

- The Secretariat of SC 7, *Corrosion Tests*, is held by Poland. A revised standard guide to porosity testing is under preparation and is expected to be completed by the end of this year. A new document on cyclical corrosion testing under conditions of varying temperature and humidity has been drafted (ISO 17354). The work of this subcommittee is up-to-date and new projects are being sought.
- The working group on EMI Shielding (TC 107/SC 3/WG 4) met to discuss the document, ISO17335, *Metallic coatings—Autocatalytic nickel over autocatalytic copper for electromagnetic shielding*. ISO 17355 specifies requirements for autocatalytic copper plus nickel coatings to provide EMI protection for parts fabricated from either plastics or metals. The document was revised, taking into account the comments received at the Cape Town meeting, and is to be registered as draft international standard.
- The working group on hydrogen embrittlement (TC 107/SC 3/WG 3) met to review the status of its documents. ISO 10587, *Metallic and other inorganic coatings—Test for residual embrittlement in both metallic-coated and uncoated externally threaded articles and rods—Inclined Wedge Method*, was completed and published. The work on ISO 15722 (Brace Test) was terminated and the project deleted from the technical work program. The first edition of ISO 15724, *Metallic and other inorganic coatings—Electrochemical measurement of diffusible hydrogen in steels—Barnacle electrode method*, was completed and published. No further progress on ISO/CD 17337, *Metallic and other inorganic coatings—Measurement of hydrogen embrittlement threshold in steel by the incremental step loading method* and on ISO/CD 17336, *Mechanical Hydrogen Embrittlement Evaluation of Plating Processes and Service Environments*, was made. It was agreed that ISO 17337 is worth completing, but that ISO 17336 should be deleted from the work program.

**Committee Meeting.** One of the topics discussed at the closing committee meeting, February 5, 2002, was the business plan drafted at the request of ISO. The plan describes the size, scope and organization of the metal finishing industry, reviews the active projects on the docket and sets dates for completion. One of the reasons for compiling the report was to determine the commercial relevance of the committee's activities. In general, all the standards that the committee is responsible for are still commercially relevant, but it is clear that few completely new standards are being drafted as a result of the lack of new developments in electroplating and related processes. There is a general lack of technical support for standardization activities in the field of metal finishing that may make it difficult to complete all the work in progress. The plan is available for review by the public on the ISO web site. A *generic* method of designating metallic coatings was also discussed but it was not possible to resolve that contentious issue at the meeting. It was agreed that the working group had to do additional work and prepare a good first draft before we can proceed.

**Thanks to Our Sponsors!** Financial support for the expenses of the meeting was generously provided by Inco Limited, Atotech-USA, and Enthone Incorporated. We collected a little bit more money than was spent, and the balance (about \$1,700) was transferred to the AESF general fund. The arrangements for the hotel and for the excursion and dinner at Sea World were made by Penny Harney, education and meetings manager, of AESF, who did a superb job. The secretary, George DiBari, received many e-mail messages from delegates after the meeting who said they especially enjoyed the visit to Sea World on Saturday afternoon, and the dinner later that evening with sharks, whales and dolphins swimming in the background. Special guests representing AESF at the dinner included Howard Saunders, president; Ted Witt, executive director; Joan Harrison, assistant executive director; and Penny Harney; all were accompanied by their spouses. Jim Menturweck, chairman, ISO/TC 107, welcomed the guests and delegates to the dinner, and addressed the group. The delegates expressed their appreciation on several occasions throughout the week for the generous support of our corporate sponsors, for the fine arrangements and the financial support of AESF.

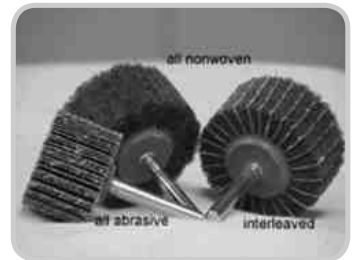
## Future Plans

Since the meeting, a number of documents have proceeded to the next stage of voting as a result of the efforts of the secretaries of SC 2 and SC 3. In the case of SC 3, not as much work has been accomplished as was hoped. An effort is being made to honor the resolutions taken at the meeting in Orlando. New work on standards for salts and anode materials and for the preparation of materials for electroplating is planned but has not been initiated.

The next meeting will be held at AENOR Headquarters in Madrid, September 15–19, 2003. CEN Committee 262 plans to meet at the same time and place. An invitation to meet in Beijing, China, in 2005 was recently received.

If you want additional information about ISO/TC 107 activities or about the next meeting in Madrid, don't hesitate to contact the Secretary at this e-mail address: [gdbari@msn.com](mailto:gdbari@msn.com). *P&SF*

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