

## "For the times they are a changin" ...and so must we.



The above quotation, the refrain from a popular song of the past, is certainly apropos to the thermal spray industry these days. As Chairman of the Thermal Spray Division of ASM over the past two years, I have seen some important changes in our industry and in the priorities and needs of our membership. Change can be unsettling and uncomfortable, but it can also provide wonderful new opportunities if we are prepared to recognize them and adapt to take advantage of them. As I near the completion of my term of office and prepare to "pass the baton" of leadership to Dr. Ron Smith, our current Vice Chairman, I would like to offer my perspective on some changes and opportunities that I believe will benefit our membership and our industry.

One area that is currently filled with change and opportunity is the market for our technology. After roughly 30 years of double-digit annual growth, recent declines in the aircraft engine industry and some other traditional markets are driving a vigorous effort to expand thermal spray technology into new applications and new markets. For example, here at Sandia National Laboratories we are working with General Motors Corporation to optimize and implement technology for reliable, high-vol-

ume, low-cost production of aluminum engine blocks with a wear-resistant HVOF sprayed coating on the cylinder bores. Ford Motor Company is similarly working to develop a production cylinder bore coating capability based on another thermal spray technology. The prospects for successful implementation of these new bore coating processes look very good, and a proven success in this critical engine application could help open the doors to a myriad of other potential high-volume applications in the automotive industry. There are similar developing opportunities in other industries, such as power generation, petrochemical, infrastructure, and biomedical, and there is good reason to be optimistic about the future. As we move toward the future, I believe that our industry will continue to expand and prosper as we develop a more diverse market that provides increasing opportunities for growth and enhanced stability in the demand for thermal spray technology, products, and services.

Just as the thermal spray industry is modifying the way it does business to adapt to changes in the industrial market, so the Thermal Spray Division must periodically re-evaluate its business strategy, re-focus its resources, and restructure to continuously improve its operations and its member services. As many of you know, we formally began this process in July of 1993 by convening a Thermal Spray Division Steering Committee that was tasked to recommend and prioritize activities that would have the greatest impact and benefit for our membership and our industry. During its two-day meeting at Materials Park, four key areas clearly emerged as the highest priorities among committee members from diverse segments of our industry:

- Recommended Practices and Quality
- Promotion of Thermal Spray to New Markets
- Information Development and Delivery
- Training and Certification

In addition, it was generally agreed that we should continue to emphasize the annual National Thermal Spray Conference and Exposition, either as a stand-alone event or in conjunction with other appropriate events.

To further enhance our effectiveness in these and other areas, the Steering Committee also recommended to the Thermal Spray Council that the present Thermal Spray Division of ASM International be replaced by a new Thermal Spray Society of ASM International, as formally recommended by the ASM 2000 Committee in 1992. The ASM 2000 study is part of an ongoing quality initiative at ASM to identify and implement new ideas and other improvements that will enhance ASM operations and its service to the materials community as we move forward into the next century. The 2000 Committee felt that the traditional technical division structure was not ideally suited to the needs of a few industry segments, specifically Thermal Spray and Heat Treating, which had demonstrated a high degree of cohesiveness and self-sufficiency. Both of these groups have also been very creative and aggressive

in implementing new services and activities, many of which raise important policy, funding and other issues that are somewhat unique to their particular industry and membership.

From my perspective, the recommended Society concept offers us many potential advantages. I do not have space here for a detailed discussion, but I will mention a few brief points. The move from a Technical Division to a Society will bring about important, constructive changes in the way we interface with ASM. Presently we are one among many diverse technical divisions, and any request by us to conduct a new activity, to receive special funding, etc., must be considered in light of its possible implications with respect to all of the other technical divisions; a process that is inherently somewhat complex. As the Thermal Spray Society (TSS) we will stand on our own, and we will have a high-level member of the ASM staff, a Managing Director, assigned to work directly with the TSS President (similar to our current TSD Chairman) and the TSS Board of Directors (which will replace our current TSD council). By virtue of his position and authority, the Managing Director will provide a very effective and efficient interface between the TSS and ASM. Because he will be knowledgeable about the diverse activities of other groups within ASM, he will also help us to benefit from the experiences of others, to interact more effectively with other ASM groups, and to draw more fully upon the extensive resources available within the ASM organization. In addition, the Thermal Spray Society will retain the same opportunities for interaction with others that we currently enjoy as a Technical Division. For example, we will send a representative to Technical Divisions Board Meetings, and we will continue to participate in Materials Week programming and other ASM activities just like any of the technical divisions.

There are those who have raised a legitimate concern that the formation of our own Society might isolate us from the broader materials community within ASM. This could indeed happen if we choose to go off on our own and fail to interact with other technical groups. However, it need not be so! Whether we are isolated from or integrated with other segments of the materials community depends not so much on whether we are a Technical Division or a Society within ASM, but rather or whether or not we choose to be actively involves with other technical colleagues. As we seek to broaden the awareness and use of our technology, it seems to me that we must intentionally work to increase our interactions with other technical groups, both within ASM and elsewhere.

The recommendation of the Steering Committee were considered and adopted by the Thermal Spray Council at its fall 1993 meeting, and a task force of eight, chaired by Dr. Ron Smith, was appointed to write a formal proposal for the new Thermal Spray Society. As I write this commentary, a draft proposal has been circulated to members of the Thermal Spray Council for review and comment. Pending final revisions and approvals by the Thermal Spray Council and the ASM Board of Trustees, the new Thermal Spray Society will commence operation this June at NTSC '94. Details of this new Society will be presented to the membership at the annual NTSC open meeting, and our current TSD Vice-Chairmen, Dr. Ron Smith, will begin his new term of leadership as the President of the Thermal Spray Society.

Although specific details of the new society will be forthcoming at NTSC and elsewhere, I would offer the following comments on some of the basic objectives and philosophy guiding this process. A primary goal is to create an agile, member-driven structure that clearly focuses our available resources on a few key areas that have been identified as top priorities; for example, the areas identified in the Steering Committee recommendations outlined earlier. In addition, it is envisioned that here will be an ongoing review of priorities and goals, and the structure or operation of the Society will be modified whenever appropriate. Another important objective is to conduct the Society in such a manner that the business sector of our industry, including senior management, will find clear benefits to active participation in the Society. Finally, we seek to create a structure that fosters greater interaction and cooperation with technical groups in the ASM family and in the larger international community.

In closing, I would like to thank the many individuals, both volunteers and ASM staff, who have worked very hard to serve the thermal Spray Division and its members during my term as Chairmen. Together, we have accomplished much. We have held successful conferences and organized topical symposia directed toward new markets. We have continued to publish valuable proceedings and a top-flight technical journal. We have inaugurated a new thermal spray group in Europe, and we have released new home study and video courses, as well as an industry environmental report. At NTSC'94, we will honor the first inductees to the Thermal Spray Hall of Fame. Now, we are developing a new Society and a new vision for the future.

Yes, the times they are a changin'. But, if we view these changes as opportunities for improvement. and continue to adapt, the future for our industry and for the new Thermal Spray Society looks *very bright*!

## Dr. Mark F. Smith, FASM

Chairman, Thermal Spray Division Senior Member of Technical Staff Thermal Spray Research Laboratory Sandier National Laboratories Albuquerque, NM 87123-1129 tel: 505/845-3256 fax: 505/845-3130