



1981 PRESIDENT

N.T. MILLS • IRON & STEEL SOCIETY



On February 23, 1981, Norman T. Mills will become President of the Iron and Steel Society (ISS) of AIME. The new president comes from the Process Technology Division (PTD) of ISS, where he came through the chairs of the PTD Steering Committee chairing the Committee in 1978.

Norm is Associate Director, Steel Process Research Laboratory at Inland Steel. Before arriving at Inland's Research Laboratory in 1966, he worked in research at Standard Oil Company of Indiana, the Linde Division of Union Carbide and the Allison Division of General Motors. Norm received an undergraduate degree in chemical engineering from Purdue in 1959 and a Master's degree in chemical engineering from the University of Delaware in 1961. Prior to entering Purdue, he spent four years in the Navy as an aerial photographer during the Korean War. Norm lives in Highland, Indiana, with his wife, Helen, and three sons and three daughters.

The Society's new president has contributed much in the area of continuous casting. In the latter part of the 60's, he worked on a research team and was instrumental in the development of a patented nozzle, the multi-port tundish, and a group of mold powders used in continuous casting. In addition,

he holds several other patents worldwide, mostly in the steelmaking and continuous casting areas. Norm has lectured both at the University of Michigan and in Society sort courses on the subject of continuous casting; he has authored and presented many technical papers for ISS, AISI, AISE and ASM conferences and publications. He has also spent considerable time in the planning and development of Inland's new coke plant and blast furnace, particularly in the areas of top charging and burden distribution.

In 1978 Norm served on the Program Committee of the Third International Iron and Steel Congress. Much of the success of this Congress can be attributed to his outstanding effort in the solicitation and scheduling of over 100 papers presented at the Congress.

In addition to taking over the reins of the Iron and Steel Society in 1981, President Mills will serve on three ISS Directors on the AIME Board of Directors. He will also serve as Chairman of the Distinguished Member Nominating Committee of ISS and the Chairman of the Society Executive Committee. He will continue to serve on the Steelmaking Program Committee as liaison representative of the Process Technology Division.

The 1981 president will assume the mantle of leadership of the Iron and Steel Society that, in its short seven years of existence as the fourth Constituent Society of the American Institute of Mining, Metallurgical and Petroleum Engineers, has established itself as a strong, vibrant organization, well recognized throughout the world as a source and gathering place of iron and steelmaking technology. As the #1 member in a member-run organization, the new president's ideas and concepts of where ISS goes from here will have much influence on the programs and direction our Society will take in the Eighties.

With this idea in mind, Iron & Steelmaker magazine went to seek out

some answers.

I&SM: The Iron and Steel Society is into its seventh year as a Constituent Society of AIME. We have doubled in size, greatly increased our publication efforts, and expanded our conferences and have established a strong continuing education program. So the obvious question is, "Where do we go from here?"

MILLS: I think it's time for us to grow beyond North America. I don't know how we do that specifically, but we certainly have had an international flavor right from the start. There's probably not a conference we put on that doesn't draw a fair number of people from outside North America – not only as registrants, but as participants, authors.

PTD put together the Continuous Casting Conference for Chicago at this year's annual meeting. The program really looks good: 36 papers, 6 sessions and a very strong international backing. Probably over half of the papers are from outside North America.

I don't know whether we should encourage joint programming with foreign societies. We want to communicate with these societies to avoid conflicts in programming. Maybe we want to go further than that. The Society must begin to meet with other technical societies in our areas of expertise.

I&SM: On the subject of conferences, do you see any new direction in this area of Society functions?

MILLS: Our conferences are super. I've been attending conferences for 15 years or more of my professional career. If I were told I could only go to one conference, I'd pick one of ours. I have had countless numbers of Europeans and Japanese tell me the same thing. The programming that goes on, the smoothness of the actual conference, those are terrific.

I'd like to see us get more economics into our conferences. My interest in this was sparked by the recent action of AIME which in effect decentralized the former



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AIME Council of Economics. To me it seems to be another step in our Society's maturation. We should blend in the concept of economics in our technology. Maybe we can develop programming in economics similar to the manner in which the Process Technology Division programs for the other ISS division conferences.

I&SM: From the standpoint of your own personal career, is there any area that you feel the Society is not performing well?

MILLS: I'm interested in trying to make the iron and steel industry become more visible to students so that they can, at an earlier stage in their career, begin to think in terms of iron and steel as being a viable outlet for their career planning.

I&SM: Are you thinking in terms of student chapters?

MILLS: WE don't have any student chapters, and maybe there is a good reason for this. Maybe we shouldn't have chapters, but I have to ask the question. The way I plan to approach the subject is to enlist academic help. In the first place, I plan to ask our academic members "Are you on my side?" If not, the meeting is over.

This is a big new direction for the Society to take. In a member-run organization, you enlist the help of members who are more expert in this than you or I. You raise the questions, you bring the people together, you stimulate the discussion, but you are looking to them to provide and implement a solution.

I&SM: Can you identify a specific goal for a member program?

MILLS: The bottom line is student interest. How do we get students interested in the iron and steel industry? How do we pique their curiosity? How do we get across to them the excitement and the challenge of iron and steelmaking? How do we convince them that even though the industry is old, there

is a helluva lot of technical challenge, there's still a lot of science to be explored and developed?

We want to get as involved as we can, to the extent where it makes sense, in curriculum planning. We must try to end up so that a metallurgist graduating from any university in our domain knows the difference between iron and steelmaking. He knows the flow of materials in a steel plant.

We ought to be thinking in terms of speakers bureaus and should be thinking of high schools as well as colleges. Most people graduating from high school don't know what engineers are – let alone metallurgists or metallurgical engineers. Our high schools just don't expose them. It may be that it's a mystery to the high school faculties too.

That appears to be a nut waiting to be cracked. Whether we can or will or feel sufficiently motivated remains a question. It's the kind of thing that calls for individuals who are dedicated – someone who feels this really has to be done. We have got to find a person who almost becomes a zealot, who has a lot of vigor and energy, because it's breaking brand new ground for us.

It's doing something else too. It's a big part in separating ISS from the TMS image. At the university level, we are probably in the shadow of and confused with TMS. After all, the AIME organization and structure is confusing to most members, let alone students who are less familiar with AIME. This Society was founded to establish a separate image of its own.

I&SM: Any other ideas about new directions for the Society?

MILLS: Technology implementation.

I&SM: I'm not sure I know what you mean.

MILLS: How do we, as a professional organization, promote the implementation of technology? I'm not talking about invention. I'm talking about the stumbling block that our industry turns into on the

implementation of current technology. In the past few years, I've witnessed an increasing cry from the ranks, not research-oriented people, but operating people, "Why does it take so long for us to get something done? Why don't we have the technology the Japanese have?" The Federal Government, through the Office of Technology Assessment, has been into this question in a big way. Our industry has come under suspicion of how backward the U.S. Steel industry has been in the adoption of new technology. There is an ample documentation to refute this suspicion and show that most of the inventions of current steel technology came out of the United States, and that implementation of this technology in the United States was limited because of capital formation problems. The question is not a new one. I am not saying anything that hasn't been talked about for at least the last few years. What I am saying that may be new is how can we, as a professional organization, aid in the implementation of existing technology?

The way we make our contribution now is through the dissemination of information... the existence of the technology. And that's good. It's an essential function of the Society. We can thrive just doing that and nothing else. That's what we do, and we do it very well.

I'm asking the question – is there another opportunity out there that we're not addressing? I don't know how to address it. I don't have any solutions, but I do know there's an industry problem more related to implementation than it is to invention. I think the major stumbling block to implementation is dollars. If that's true, maybe there isn't any contribution that we can make. But it's a question I'd like to see tossed around. Maybe there are some people who are a lot brighter than you and I who can be stimulated to think about it and come up with something we wouldn't dream of.



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I&SM: Have you any ideas on how to lead the Society into endeavors like this?

MILLS: I'd like to do more long-range planning for the Society. I'd like to put about half a dozen creative people around a table for about an hour and let them bounce ideas off each other without criticism. Almost a brainstorm type session. And out of that might emerge some collective good thoughts.

The job of a long-range planning committee is a tough one, the first time around, to build the framework. But once the framework is put together, from then on out that committee might be relatively inactive. Once the plan is put together, the committee's primary function would be to review it on an annual basis. If it's a good plan, it will only need modification from time to time.

I&SM: Let's get back to you. What has AIME done for you as an individual member?

MILLS: I'm not going to tell you anything you haven't heard. AIME has given me an opportunity to broaden professionally through participation, through making presentations. Probably the best thing is that it has given me the opportunity to meet and talk with all of the giants of our industry. AIME brings people together to share technology.

I&SM: Do you encourage young people working for you to join our Society?

MILLS: Absolutely.

I&SM: what do you tell them?

MILLS: It's our professional organization. It promotes the continuation of our profession by broadening it and making it grow. It provides an outlet for your contributions to your profession. It gives you a chance to come together with your colleagues from other companies and universities to stay fresh, to stay viable, alive and grow. You become better and better as a technical person through these contacts – the continual contacts.

I&SM: How can we convince company

management of these factors?

MILLS: I think the Society took a first step recently by making a presentation to AISI. That was a positive step. I'm not certain of what impact it had. My guess is a little bit, but it certainly was not negative.

As an individual, each member must point out to his management where ISS has done a good job. Where it's been to the person's advantage to be a member of the Society. When a member embarks on a project that is successful, often such projects are stimulated through Society activities. This should be pointed out to their management.

There's a lot of literature, there's a lot of knowledge about specific subjects floating around, but something has to call your attention to it.

I&SM: I'm not quite sure I understand.

MILLS: The point I'm making is that stimulation, interest – those kinds of things happen at our conferences and at our committee meetings. That has to be beneficial to both the man and his company.



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