



# 1988 PRESIDENT

## LEONARD G. NELSON • IRON & STEEL SOCIETY



Leonard G. Nelson assumed the presidency of the Iron and Steel Society immediately following the AIME Annual Meeting on January 25. The 1988 President is General Superintendent of steel and Casting at LTV's Cleveland, OH, Works. He has been an active member of the ISS since 1975.

Len began his career in the industry in 1959 as a participant in Republic Steel's Technical Operations Training (TOT) Program. The Warren, OH, Works' coke plant was his first assignment. After 18 months at the coke ovens, he transferred to the open hearth shop as a junior melter in the TOT program. Later, as a turn foreman at the Warren Works, he participated in the startup of Republic's first basic oxygen furnace (BOF) steelmaking shop in 1965. Len became general foreman of the shop in 1967 and assistant superintendent in 1968. He was transferred to Cleveland in 1976 where he was made superintendent of the BOF shop.

Len graduated from Muskingum College, OH, in 1958 with a bachelor of science degree and some outstanding athletic achievements. He was inducted into the Muskingum College Athletic Hall of Fame as the second leading scorer in Muskingum basketball history. Len had a career total of 1,532 points despite an injury that limited his playing time

to 12 games during his senior year. He twice scored over 400 points in a season (463 and 514) and is also Muskingum's all-time leading rebounder. Len was the first recipient of the Ohio Athletic Conference's (OAC) Mike Gregory Award, earning the award as OAC's most valuable player in 185, his junior year. He led the Muskies with a 24.4 point-per-game average that year, a record at the time. He also led the OAC in field goal accuracy and was in the top ten in several other categories.

Len has been very active in the Society. He served on the Steelmaking Division executive Committee from 1980 to 1986 and he was Chairman of the Steelmaking Division in 1985. He served on the Board of Directors of the ISS in 1985 and 1986.

Len and his wife, Janet, reside in Brecksville, OH, with their son, Scott, who will graduate from high school this summer.

To get a little more insight into the Society's new president, the Iron & Steelmaker went to visit Len in his office at LTV's Cleveland plant.

**I&SM:** You have been in steelmaking for almost 30 years. What do you believe is the most significant change to have occurred during this period?

**NELSON:** The fact that we're becoming statistical animals, whether we realize it or not. Our judgment values are different now. We're more interested in consistency of operations. When you get consistency, productivity and quality will follow.

**I&SM:** What facet of your operations has this affected most?

**NELSON:** Hiring. When I look at the people I would hire, I look for engineering backgrounds that fit into the operating and maintenance positions. In today's operations, we tend to rely more on electrical and mechanical engineers.

**I&SM:** Why?

**NELSON:** When you get into SPC (Statistical Process Control) concepts, you set up your operational guidelines for

continuous improvement. You need electrical and mechanical engineers more to maintain the operation of the shop and improve the operation. SPC establishes the capabilities and then drives the process toward continuous improvement.

We've chosen to use technically-oriented people in the field to develop expertise for continuous improvement. Metallurgy is part of the action, but it's not all of the action. We're looking for total control of all of the aspects of steelmaking. The smooth continuous operation of the equipment, management of that equipment, maintenance of that equipment, and design of that equipment – all of these are important to control the process, whether it's electrical or mechanical.

I'm talking about maintaining the vessel, so it's there 100 percent of the time to process steel for the customer. If the vessel doesn't run then I don't satisfy the customer. And the customer is our ultimate responsibility and the reason we exist.

**I&SM:** The steel companies have not always been so aware of the customer?

**NELSON:** I can remember the day when the only thing we produced for the marketplace was what we thought the marketplace needed. We never really went to the customer and asked what his needs were.

**I&SM:** Are you saying that tonnage is no longer your top priority?

**NELSON:** The day and age of the tonnage mentality is gone. You can't exist with that attitude. The industry recognizes that there are both internal and external customers to be satisfied. I can remember when they used to believe that from the point in time that you opened the ladle and teemed the ingot, everything that happened to that steel happened after it became an ingot. Oxidation, silvers, inclusions, surface problems – all were caused after the ingot was produced. Today, the industry is more technically oriented than it has ever been.



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**I&SM:** What role does the Society play in all of this?

**NELSON:** The Society has the responsibility to provide the right information about what's going on in the industry around the world. What should we as an industry be picking up on for self-improvement? And the Society is doing that. All of our different divisions contribute to this effort.

**I&SM:** For example?

**NELSON:** I am favorably impressed by the Society's program on ferrous research. I think that this area is a very important part of the steel industry picture. I think that any effort the Iron & Steel Society can undertake to keep research active is a must.

I would like to see this ISS program now. I think we have to get more people involved in research. I could give you numbers on how we stack up domestically versus internationally in steel research. We are dramatically undermanned in this field. Over time, I think this ISS program can help the cause of research in the North American steel industry.

I think it's a logical fit for the industry. Our industry is going to need basic research. We've been busy going out on the open market buying that kind of information.

**I&SM:** What do you consider to be the Society's most pressing problem?

**NELSON:** I have a long-term concern about our Society's growth. We've been happy to hold our own. I think it's time to develop some positive direction. That's why I want to get involved on the local level to see what we have to do to encourage growth.

One of the best benefits to belonging to the ISS is the continuing education provided by the Society.

**I&SM:** Please explain.

**NELSON:** What you gain from the conferences, not only the national conferences but the local conferences. When I came to Cleveland, I got involved on a

local basis. I came through the chairs of the local section. The local programming at that time was exceptional. This was because there were so many sources or steel plants that participated. Not only that, the section took advantage of the national programming and brought in a lot of exceptional papers that had been presented at the national conferences. I was enthused about these types of educational opportunities. I was also prompted to belong by my local management. They considered my participation in the Society as extremely valuable both for them and me.

**I&SM:** Do you feel that the vitality of the local sections has changed?

**NELSON:** The local sections have encountered some problems. My section, the Cleveland Section, is one example. Formerly, there were three major participating companies. Now there are only two due to my own company being the combination of Republic and J&L. As a result, we're becoming somewhat inbred, so to speak. We should be reaching out and getting someone from a different area to come in. But that becomes a matter of economics and time.

Look at what has happened in the Buffalo-Hamilton Section with Bethlehem Lackawanna shutting down and the Republic Buffalo shop closing. Now you're totally relying on Stelco and Dofasco. So they're out inviting mini-mills to participate.

I see a similar problem in Pittsburgh where all of the shutdowns have taken place. Somehow we have to find ways to help the sections.

**I&SM:** So you see strong local sections as the breeding ground for national participation?

**NELSON:** I find that there are people who belong to local sections who believe ISS and AIME begin and end with local sections. That's the way a lot of our most active members became associated with ISS.

**I&SM:** Do you think that the Society would benefit by bringing ISS and the Association of Iron and Steel Engineers together?

**NELSON:** I haven't really made up my mind. I think there's a need, but it's a difficult political issue.

There are strong affiliations between the rolling mills and AISE. And the hot end of the business, steelmaking and ironmaking, has been predominantly AIME. It takes time to overcome these relationships.

Long term, I think the two organizations should be rationalized. It might be well to have an ad hoc committee study the two groups with the purpose of bringing about a reasonable rationalization of the two groups.

But the ISS has an alternative. We can continue along our own way, strengthen our base, increase our membership and make the Society stronger. And then time will take care of the situation.