





Keith Busse (left), recipient of the Hogan Lecture Award, and Dick Teets (right), 2006–2007 AIST president.



The ribbon-cutting ceremony kicked off the AISTech 2007 Exposition.



The AIST Foundation Golf Classic 2007 was held at Eagle Creek Golf Club in Indianapolis, Ind.

AISTech 2007, held May 7–10 at the Indiana Convention Center, Indianapolis, Ind., was once again the North American steel industry's most important event of the year, with 5,550 in attendance, with 20% of the total from outside North America). Steel producers, suppliers, corporate executives and industry leaders, academia and students had the opportunity to attend more than 331 technical presentations during the four-day conference. The accompanying exposition, surpassing impressive figures from 2006, represented one of the largest expositions in the global steel industry, with a sold-out show floor spanning 58,975 square feet.



The AISTech 2007 Exposition featured the products, equipment and services of nearly 400 exhibiting companies.

AIST FOUNDATION GOLF CLASSIC

AISTech 2007 kicked off with the fourth annual AIST Foundation Golf Classic on Sunday, May 6 at the Eagle Creek Golf Club in Indianapolis. A total of 288 golfers supported the event, raising more than \$45,000 for AIST Foundation programs. The winning foursome included Frank W. Guise, ANH Refractories Co., and Paul J. Musiol, Tomas Richter and Richard A. Wilson, all of North American Refractories. Congratulations and thank you to all golfers and corporate sponsors who supported this worthwhile cause.

EXHIBIT HALL AND TECHNICAL SESSIONS

With a sporty race car theme and a backdrop of the Indianapolis 500, AISTech 2007 welcomed 398 exhibiting companies, a 10% increase over 2006. The show floor space was extended and grew to 58,975 net square feet of booth area compared to 51,900 in 2006. Special thanks to Catherine Davidson of Herr-Voss Stamco and Lou Valentas of Berry Metal Co., who directed the exhibitor committee. They helped to make the exhibit floor a place where every attendee could learn about new technologies in the industry and meet face-to-face with the individuals who specify, purchase, design, and operate plants and facilities associated with the production and processing of steel.

The AISTech conference program, developed by the AIST Operating Committee members representing iron and steel producers, suppliers, and academia, focused on all aspects of ironmaking, steelmaking, rolling, finishing processes and equipment technologies. All AISTech registrants were invited to join their colleagues at the Welcome Reception on Monday



Bill Breedlove (left), president of AIST Foundation, and Alan Cramb (right), the 2007 Howe Memorial Lecturer.

evening, May 7, in the Indiana Convention Center Exhibit Hall for an evening of socializing. During AISTech 2007, a total of 331 technical papers were presented, grouped into 76 sessions and six panel discussions. Conference registration totaled 1,861, with attendees representing 40 different countries.

HOWE MEMORIAL LECTURE

The 2007 AIST Howe Memorial lecturer was Dr. Alan W. Cramb of Rensselaer Polytechnic Institute. The lecturer is selected in recognition of outstanding individual contributions to the science and practice of iron and steel metallurgy or metallography. Dr. Cramb's presentation, "From Liquid to Solid: Key Issues in the Future of Steel Casting," was presented on Monday, May 7 to a crowd of 600. (See page 59 of the July 2007 issue of *Iron & Steel Technology* for the published version of the 2007 Howe Memorial Lecture.)

The Howe Memorial Lecture was established in 1923 to honor Dr. Henry Marion Howe, who helped turn steelmaking from an art into a science with his gift of observation and deduction.



Alan W. Cramb, Clark and Crossan Professor of Engineering, Dean of Engineering, Rensselaer Polytechnic Institute, was the recipient of the 2007 Howe Memorial Lecture Award.

TOWN HALL FORUM

Leading industry executives gathered on Tuesday, May 8 to participate in a panel discussion that has become the signature session of AISTech. The Town Hall Forum, moderated by John D. Callaway, offered extensive dialogue on steel issues and concerns by key industry leaders, followed by an open discussion of questions from the audience. Panelists included Alain F. Bouruet-Aubertot, president and general manager, Minteq; Larry T. Brockway, vice president and treasurer, United States Steel Corp.; Leonard H. Chuderewicz, executive vice president — operations, Mittal Steel USA; Giff F. Daughtridge, vice president and general manager, Nucor Steel—Hertford County; Mark D. Millett, executive vice president, Steel Dynamics Inc.; Joseph D. Russo, senior vice president and chief technical officer, IPSCO Inc.; and Michael J. Wagner, executive vice president and chief commercial officer, SeverCorr LLC. Special thanks to George Koenig, president of Berry Metal Co., for chairing this year's Town Hall Forum. (An abridged transcript of the AISTech 2007 Town Hall Forum panel discussion begins on page 36.)

PRESIDENT'S AWARD BREAKFAST

AIST President Richard P. Teets Jr. hosted the President's Award Breakfast on Wednesday, May 9 in the Sagamore Ballroom at the Indiana Convention Center. The sell-out breakfast program with 1,100 attendees consisted of presentations of several prestigious association awards and AIME awards. (See the July 2007 issue of *Iron & Steel Technology* for a complete listing of awards.)

"Out of the Ashes: The 21st Century Transformation of the American Steel Industry," a keynote presentation by Keith E. Busse, president and chief executive officer of Steel Dynamics Inc., followed the President's Award Breakfast. (See the July 2007 issue of *Iron & Steel Technology* for the published version of the 2007 Hogan Lecture.)

PLANT TOURS

Nucor Steel—Indiana, Crawfordsville, Ind., and Steel Dynamics Inc., Pittsboro, Ind., hosted two plant tours held in conjunction with AISTech 2007. Approximately 150 conference attendees traveled by chartered buses to participate in the tours on Thursday, May 10. Nucor Crawfordsville is the site of the world's first commercial compact strip plant (CSP), built in 1989, as well as the site of the world's first commercial Castrip operation. The Steel Dynamics' Engineered Bar Products Division in Pittsboro supplies carbon, resulfurized,





Kevin J. Bort (left), AISTech 2007 Conference Planning Committee chair, and Charles J. Messina (right), 2007–2008 AIST president.

alloy, microalloy and specialty steel grades. The division continues to expand its products and processes to include bar inspection, bar turning, saw cutting, and heat treating in its newly constructed bar finishing facility.

AIST PROMOTES THE STEEL INDUSTRY TO STUDENTS AT AISTech 2007

The AIST Foundation is working hard to fulfill its mission to ensure the iron and steel industry of tomorrow will have a sufficient number of qualified professionals. With the support of five industry sponsors — CMC Steel Group, IPSCO, Mittal, Nucor and Steel Dynamics — special student programs took place with successful outcomes at AISTech 2007 in Indianapolis, Ind.

Engineering students from all related disciplines were encouraged to attend with offers of complimentary registration, travel grants and paid session monitor positions. The University of Missouri–Rolla won the Attendance Challenge prize of \$500 for bringing the most students.

The students began with a plant tour to Nucor Steel–Indiana on Saturday, May 5, followed by a great dinner sponsored by Nucor.

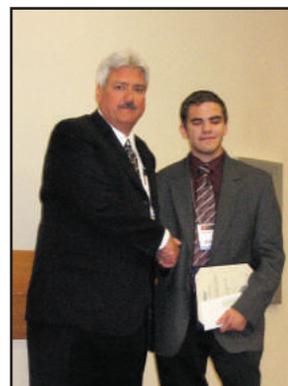
On Sunday, May 6, the students were bussed to Steel Dynamics Inc., Pittsboro, for lunch and a plant tour. The students returned in time for a Student Orientation filled with information on the steel industry and the need for young professionals, networking tips, and an overview of AIST. Students enjoyed dinner and the opportunity to network with representatives from the five corporate sponsors.

The first annual Senior Project Presentation Contest, sponsored by The Timken Co. and Midrex Technologies Inc., was held on Monday, May 7. Nine students presented their senior projects before a panel of judges. Participants were judged on technical content, topic coverage and presentation skills.

- The first place winner, receiving \$1,500, was Ryan Wojes from Northwestern University for his presentation on “Atom Probe Tomography Study of Cu-rich Precipitates in Blast-resistant HSLC Steel.”
- Second place, receiving \$1,000, was Samuel Gabay from New Mexico Institute of Mining and Technology for his presentation entitled, “Analysis of Anodic Iron Oxides on Steel Using Highly Assymetric Bragg XRD and SEM.”



Kevin Bort congratulates R. Wojes for winning first place in the student presentation contest.



Kevin Bort and Samuel Gabay, second place winner.



J. Kopfle from Midrex presents a certificate to Z. Voss and R. Spoering for third place.



The participants included (from left to right): First row: Meghan McGrath and Jacob Heithold from the University of Missouri–Rolla, Ryan Wojes from Northwestern University, and Michael Asaro from Virginia Tech. Second row: Ryan Spoering and Zane Voss from the University of Missouri–Rolla, Whitney Patterson from Washington State University, Samuel Gabay from New Mexico Tech, and Charles Fisher from Iowa State.

- The third place winner, receiving \$500, went to Zane Voss and Ryan Spoering from the University of Missouri-Rolla for their presentation entitled, "Life Cycle Greenhouse Gas Emission Comparison of Steel and Concrete Structural Members for Bridges."

AIST thanks the contest chair, Kevin Bort from Steel Dynamics, and the judges, Jay Martin from IPSCO Inc., Daphne Messer from CMC Steel Group, Clay Spangler from Steel Dynamics, and Jay Watson from Nucor Steel-Indiana.

AIST EXPRESSES THANKS

The AIST executive committee and board of directors extend special thanks to Kevin Bort of Steel Dynamics, AISTech 2007 Conference Planning Committee chair; Catherine Davidson, Herr-Voss Stamco, and Louis Valentas, Berry Metal Co., exhibitor committee co-chairs; George Koenig of Berry Metal, session chair for the Town Hall Forum; Bill Breedlove, MultiServ North America, AIST Foundation past president; and Dale Heinz, Mittal Steel, AIST Golf Committee chair; as well as all AIST member volunteers, authors and exhibiting companies who were involved in planning another successful event.

PLAN NOW FOR AISTech 2008

AISTech 2008 — The Iron & Steel Technology Conference and Exposition is scheduled for May 5–8, 2008, at the David L. Lawrence Convention Center in Pittsburgh, Pa. Abstracts for this major international conference are being sought now for manuscripts to be presented at the event and published in the proceedings. Visit www.aist.org to submit an abstract for AISTech 2008.

More than 220 companies have already purchased exhibit booths for AISTech 2008. Don't be left out! For more information or to reserve your booth space, contact Geraldine Kane (ext.639 or gkane@aist.org), or Jeffrey Campbell (ext. 640 or jcampbell@aist.org) at (724) 776-6040.



Members of the 2006–2007 AIST Executive Committee (left to right): Andrew S. Harshaw, second vice president; Richard P. Teets Jr., president; Charles J. Messina, first vice president; Nicholas M. Rymarchyk Jr., officer-at-large; Richard E. O'Hara, past president; and Ronald E. Ashburn, executive director and secretary.



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AISTech 2007 Town Hall Forum Indiana Convention Center, Indianapolis, Ind. May 8, 2007



Leading industry executives and members of the AISTech 2007 Town Hall Forum are pictured: (front row, left to right) **George J. Koenig**, president, Berry Metal Co., session chair; **Joseph D. Russo**, senior vice president and chief technical officer, IPSCO Inc.; **Mark D. Millett**, executive vice president, Steel Dynamics Inc.; **John D. Callaway**, Town Hall Forum moderator; (back row, left to right) **Michael J. Wagner**, executive vice president and chief commercial officer, SeverCorr LLC; **Leonard H. Chuderewicz**, executive vice president — operations, Mittal Steel USA; **Larry T. Brockway**, vice president and treasurer, United States Steel Corp.; **Giffin F. Daughtridge**, vice president and general manager, Nucor Steel–Hertford County; **Alain F. Bouruet-Aubertot**, president and general manager, Minteq; and **Ronald E. Ashburn**, AIST executive director.

*The following transcript is an abridged version of the
Town Hall Forum panel discussion.*

ASHBURN: Good morning. My name is Ron Ashburn, and I am the executive director of the Association for Iron & Steel Technology. It is my privilege to welcome you to Indianapolis and to AISTech 2007, and to our Town Hall Forum. AIST is working for your future to create a truly sustainable iron and steel industry, and the Town Hall Forum is just one example of the quality programs and services that this organization provides for its memberships in order to fulfill our mission, which is to advance the technical development, production, processing and application of iron and steel.

We have new panelists this year representing both North American and global steel interests, and our theme for this year's discussion is the creation of a sustainable steel industry. A sustainable industry is more than just rhetoric. We must work hard to make it our destiny. To begin, allow me to introduce the chair of this year's Town Hall Forum, George Koenig, president of Berry Metal Co.

KOENIG: Good morning, everybody, and welcome to the 2007 Town Hall meeting. It's hard to believe this is the fifth Town Hall Forum, and it's hard to believe what's happening to our industry. There's no Bethlehem Steel, no LTV. ISG has come and gone, Arcelor-Mittal is now making over a hundred million tons per year. Every week it seems like something is happening. The discipline in the industry is taking us all to the next step. It's phenomenal, and our industry is changing for the better. Our goal this morning is to give you insight into where we are going and to see what the latest perspective of our industry is. Sit back, relax and enjoy, because it's going to be an exciting session led by John Callaway and our team of panelists. Let me introduce you to them. First, Alain Bouruet-Aubertot, president and general manager of Minteq. Larry Brockway, vice president and treasurer of U. S. Steel. Len Chuderewicz, executive vice president — operations, Mittal Steel USA. Giff Daughtridge, vice president and general manager, Nucor Steel–Hertford County. Mark Millett, executive



The Iron & Steel Technology Conference and Exposition May 7–10 • Indianapolis, Ind., USA

vice president, Steel Dynamics. Joe Russo, senior vice president and chief technical officer, IPSCO. Mike Wagner, executive vice president and chief commercial officer, SeverCorr. And our moderator, back by popular demand, is John Callaway, the noted Chicago broadcaster with more than four decades of experience as host, news anchor, reporter and analyst. So let's give a warm welcome to our panel and John Callaway.

CALLAWAY: George, thank you very much and good morning. I'm delighted to be back, and as always, I'm humbled to be back. As you know, I'm a generalist journalist, not a specialist, and so I hope that I ask the right questions today. I want to begin with a story of a man whose friend referred him to a lawyer. So he got his session and he said to the lawyer, "May I ask you two questions?" And the lawyer replied, "Yes, what is your second question?" (Laughter.)

We have time for more than two questions today. And we have issues which are highly complex. The first area that we are going to discuss is the business cycle. And the question, Giff, is, "Are we smarter about it now?"

DAUGHTRIDGE: Thank you, John. First, I'm happy to answer this question before Larry does. This is a very detailed financial question, and I'd like to go before the CFO does. The question of smarter — well, I don't want to insult anybody by saying that we're not smarter than we've ever been. Maybe Wagner is smarter because he's learned how to speak Russian recently. Darwin said that we get into a certain set of circumstances, and the species either perish or change and become better suited — either survive or hopefully thrive. I think that's what we, as an industry, are doing, having gone through the changes that have taken place. There's going to be a lot of comments on inventories and global factors and other drivers for the cyclical nature of our industry. What I've seen in my time in the industry is that it never seems that at any one moment in time you're in a cycle. You can always look and see the cycles up and down. But the moment you think there have been fundamental changes that have driven you to that moment, you have taken away the cyclical nature. Back in '02 and '03, we were doing everything possible to try to make a difference and find a way to make a return. The same thing is true in the last couple years: there have been sustainable changes, they're going to keep us, we're going to have higher lows and we're going to have higher highs. So it's hard to view where you are in the cycle at any one

moment in time. And those fundamental changes are certainly apparent right now.

The idea of \$30-a-barrel oil paralyzed everybody. We thought, "That's a tax on everybody, it's going to freeze the economy, it's horrible." It's now a \$62 barrel of oil, or thereabouts. \$4 natural gas was a cause for panic, and now we've peaked way over that, probably close to \$8 today. We're fighting a very unpopular war with no defined exit or victory strategy. We had a first quarter GDP of 1.3 percent. When you look at all those things together, nobody in the industry, nobody in the general economy would have said, "You know what? The first quarter is pretty good." The steel companies had decent earnings. Overall, we had very good earnings, and so I think we're in a six-year growth period with all these other things going on, and it doesn't look like the growth is over.

CALLAWAY: So are you saying that the word *manage* is not operable when it comes to the business cycle? Have you learned some things about managing inventory, and if so, what?

DAUGHTRIDGE: These are all corporate guys here, and I'm the middle guy sitting here. But from my view of the world, we are managing like crazy. Day in and day out, we are using the collective work ethics of everybody on the team, whether it's a single mill or in the entire company, to do what we can. But the business cycle is so much bigger than that. Collectively, we make a difference, but at any one point in time we're managing and we're learning things, we're becoming experienced and we're evolving. Again, we're not necessarily smarter, but in the bigger scheme of things, the new globalization, the things that drive consolidation — they're the things that will determine if we remain a cyclical business for the long term.

CALLAWAY: Larry Brockway, how do you answer this question?

BROCKWAY: The business model has fundamentally changed from where we were a couple years ago, and that's been driven by a couple things. It's been driven by consolidation. There's no ifs, ands or buts about that. When two companies come together to create synergies, they've lowered their production costs. And by doing that, they're more cost-competitive in down cycles. There have been labor agreements, particularly in the integrated model, where we've taken out 20 percent



of the workforce. We've gone ahead, and the people that are left have better job roles so that we can operate more efficiently, leaner and not lose productivity. Take a look at raw materials. Now, we didn't have much control over that, the effect that scrap prices are higher, iron ore prices are higher. But as Giff said, we've learned how to manage them better.

CALLAWAY: Do you mean via surcharges, for example?

BROCKWAY: Surcharges for the minimill. You've got to be able to recover costs. What we've really done is learn to operate as businessmen, not just operators. We've always been pretty good operators in the business. We've had to be, for what we've gone through the last 20 years. Now we're better businessmen.

CALLAWAY: So I'm hearing you say that, in the midst of all the unknowns, there are core disciplines, core areas that you can really develop.

BROCKWAY: We have much more flexibility on the cost side, whether it's recovered costs through surcharges, whether it's managing your labor cost, staffing to the right level instead of overstaffing, whether it's vertical integration, controlling your raw material cost, whether it's hedging forward. A lot of those things weren't available to us a couple of years ago.

CALLAWAY: And you don't have to produce more tons, like I think some operations used to do when things were a little lean.

BROCKWAY: In the fourth quarter last year, the industry operated in the 70 percent range of capacity. In North America, U. S. Steel operated at 67 percent, and we still made money, because we knew how to manage our inventories. We knew how to manage our labor costs. We took outages and did the work to be prepared for the good times. We're operating as a business, not just to produce volume.

CALLAWAY: And Len, you're not just sitting back and saying, "Well, we'll try and manage what comes to us." You're actually making "what comes to us" happen.

CHUDEREWICZ: The metals industry will always be a cyclical business. The main driver here that has helped us manage this is consolidation. Consolidation to the point that Larry is talking about, where you took out capacity in the old days. Let's look at Mittal USA. Mittal USA is a combination of five former flat roll steel companies. In the old days, most integrated steel companies had two blast furnaces. When you had to cut back, you were talking about taking out 50 percent of your capacity. People were reluctant to do that — you couldn't make money doing that — so people kept striving to produce tons, driving prices downward. Consolidation

helps that. Due to the weakness in the marketplace this last year, we took out three blast furnaces and brought them back.

CALLAWAY: How long did that process take?

CHUDEREWICZ: We reacted very quickly by managing inventories. We took one blast furnace out. That wasn't enough. We took another blast furnace out. We took a third blast furnace out to balance our inventories and create a stable marketplace.

CALLAWAY: When you talk about balancing those inventories, how do you do that? How are you smarter today than you were a few years ago?

CHUDEREWICZ: Labor efficiency, the new contract with the steelworkers, has helped us become more efficient and lower our costs. Focus on cash, focus on inventory —

CALLAWAY: I'm talking about the inventory issue for a minute. How is it that you're able to do that better today? Is it a technological issue that you're able to shut things down faster, or do you anticipate pricing and business in a better way?

CHUDEREWICZ: I wish I could say we anticipate in a better way, but I don't think we do. I think it's a reaction and a business point that we're not going to let inventories balloon. We're not going to continue to produce steel if there's no customer to take it away. I think it's a business principle that we now follow more strictly. Again, consolidation is key. When you have to react, how do you react? When you're larger, you can incrementally cut back, without facing the tough decisions referenced in my earlier blast furnace example.

CALLAWAY: Alain, how do you deal with the question of the business cycle, and are you smarter?

BOURUET-AUBERTOT: For a supplier, obviously the cyclicity of the steel industry is a way of life. But I would say the industry has changed over the last few years. You still have a volatility, at least here in North America. But instead of having very strong ups and downs the way it was a couple of years ago, you have some slowdowns, every 12 to 18 months. The last I remember was the third quarter of 2005 and around the beginning of the year. So as a supplier, you must be flexible. It's not easy, but it's the way the industry is. But if I had to trade the volatility of what we have today as compared to the very strong cycles, including downturns in the past, I would trade for the cyclicity we have today.

CALLAWAY: So would you describe the current era as one of volatility as opposed to roller-coaster cycles?



BOURUET-AUBERTOT: I would say volatility as opposed to cyclicity. As a supplier, you don't want to have your customers enter bankruptcy. That's what the suppliers were facing a couple of years ago and disregarded.

CALLAWAY: As a supplier, are you able to give customers hints about things that you see that they may not be seeing?

BOURUET-AUBERTOT: I don't think we see more than what our customers see, but we obviously act with them, we work with them and we ride the cycle with them.

MILLETT: I think there's been a fundamental change in leadership, too, that has made a phenomenal change in the industry. You have Alexei Mordashov, Lakshmi Mittal, John Surma, all having a focus to make money. For the longest time, the steel industry, going way back to when it was developing — Russia, Britain, America all wanted to have the biggest blast furnace. And that same mentality evolved into who can make the most tons. In the last few years, certainly since the rationalization of our industry, there's been a change of focus. We're here to make money, we're here to create value for the shareholder. And that changes your focus away from solely operations, and more into markets and consolidation.

CALLAWAY: Are you saying that traditionally the steel companies weren't there to make money?

MILLETT: Absolutely.

CALLAWAY: That's shocking.

MILLETT: In all honesty, that's why the Nucors of the world and subsequently the SDIs of the world have been so successful.

CALLAWAY: If companies weren't there to make money, what were they there to do?

MILLETT: I don't know. (Laughter.) At Nucor and at SDI, we asked that question for years and years.

CALLAWAY: Well, what was the answer back then? Surely there were people who wanted to make money

and have profits to reinvest and grow the business, at a minimum.

DAUGHTRIDGE: What Mark is saying is correct. It's the ability to make decisions. In the past, people were driven to decisions by circumstances where they were cornered. If they didn't have cash flow, they were going to perish. So they made bad decisions on pricing and on market share. Again, it goes back to the weight of consolidation and the ability to make changes. When you have only one mill or one blast furnace or you don't have any cash to make payroll next week, you have to make desperate decisions. I think *desperate* is the word that keeps coming up when we talk about some of these periods of time. People were making desperate decisions — in hindsight, horrible decisions — as far as the profitability of our industry was concerned, but at that time their options were limited.

MILLETT: In 2000 and 2001, 44 percent of our industry was in bankruptcy. The people you see here today survived, literally. First, it was rationalization. The American steel industry at one time employed 200,000 people, and an integrated mill would spend six to eight man-hours per ton to produce a ton of flat rolled steel. Today, U. S. Steel Gary Works or any efficient integrated mill is probably down to one to two man-hours per ton. The mini-mill industry, such as Nucor or SDI, is at about a quarter of a man hour, 0.29 man hours per ton. We've become very, very

efficient at what we do, and we can survive.

CALLAWAY: You can do more than survive, is that fair to say? I mean, you're in a growth mode.

MILLETT: We've done a little bit more in the last year or two, yes. But you talked earlier about inventories. Principally, we're driven in this country by the demand. You've got a steel consumer out there, 120, 130 million tons a year, when our economy is bouncing along reasonably healthy. We have only about 95 million tons of capacity. There should be no reason why the American steel industry can't be healthy all the time. The problem comes in with the inventories. This past fall, inventories within the distributors/service center industry climbed to about 3.8 months, a record high, principally driven





by imports. Our health is driven by the consumer rather than by us as producers.

CALLAWAY: Joe, what's new with you?

RUSSO: I think, as everybody knows, we've just been acquired.

CALLAWAY: Tell us about that. The last time I talked to you, you couldn't talk about it much.

RUSSO: What I know about the story with SSAB is what we've seen in the press. Olof Faxander, SSAB president and CEO, talked about what their strategy was for the purchase of IPSCO, and what SSAB is. They're not really interested in being a major player, so to speak, in volume, in the businesses that they're in. What they're interested in is being a niche player. And IPSCO, as everybody is aware, is a niche player in either energy tubular products or plate products, where SSAB is a niche player in high-strength strip products and in their well-respected family of Hardox/Weldox plate products.

So they believe that their acquisition is about growth. Everybody says when they acquire someone today that it's about growth. We did the same thing when we acquired NS. In this instance, I think it is about growth. Of all the potential suitors that may have been interested in IPSCO, SSAB would probably be the one that will do the best for the company and for our employees as well.

As far as getting smarter, I agree with Mark that fewer desperate players really help to even out the cycle. But IPSCO has a strategy of being steel short. By that, I mean that most of the leverage assets, of course, are steel mills, and that we need to do everything we can to always keep the steel mills operating. One of the ways we do that is to have more downstream uses for the steel than we have steel capacity. So when things are

really good, we'll be out buying 6, 7, 800,000 tons, and when things are bad, we'll pull in. It's actively managed monthly as to what decisions to make, as to whether or not we continue to buy. That has done really well for IPSCO. And then there's some other things we've done in the types of assets we have —

CALLAWAY: Such as?

RUSSO: The way we make plate. We're lucky we have a new facility. The way we've configured it. Just to give a little history, I will go back to shortly after Nucor had put in the thin slab casting process. IPSCO was a very small player in western Canada. I'm sure a lot of people hadn't heard about IPSCO, and we were kind of wondering, "Well, where should we expand and how?" We ruled out eastern Canada, so that left the U.S. In looking at the kinds of production facilities, we looked at how people were making plate. We felt that, if we could do what Nucor had done with thin slab casting, indeed if we could configure the production assets in such a manner that we could be super-efficient and use really large slabs — our slabs go up to 70 tons, very high yield — then with those types of assets, even in the down market, we'd always have an advantage because our cost, our incremental cost, would be such that we'd always be in business.

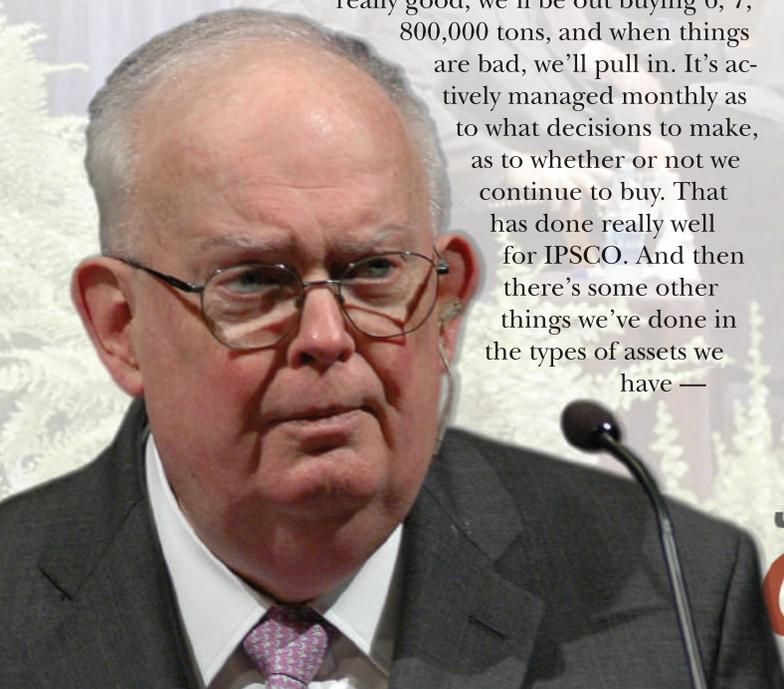
CALLAWAY: Mike, we're going to get a start-up story from you, but how long have you been in the steel business?

WAGNER: Since '83.

CALLAWAY: What is your view of managing smarter this business cycle?

WAGNER: I agree with a lot that's been said. Some of us came in the industry when things were very bad, and we started at the low end. In the back of our minds, we're always worried about that other side, even when things get good. I also think you're seeing again that we're managing the business a little bit different. We're managing it more for results and less about volume. I think when you look at a start-up company or a new steel mill, there's an opportunity to be a low-cost producer and to generate a return for the stakeholders. I'd say 10 years ago, maybe that wasn't the case.

DAUGHTRIDGE: We've had a lot of talk on the macro side of the cycle — you know, the big things: "Where do we need to be on gross domestic product in order for the steel industry to not just survive, but thrive?" and those kind of things — and there are issues that need investigation. But on a much smaller level, to just the steel industry, the things that have hit us in the last three years that looked like cycles have been overstocking at the service centers. They've been all inventory-driven issues.



John D.
Callaway



RUSSO: I'd just like to chip in on the tubular side. Other than large-diameter pipe, which is made to order, due to the lead times required to produce tubular products, we sell all of our industrial products and energy tubulars through our inventory. And that inventory is driven by the forecast that the end-users end up giving to the distributors. In 2005 and 2006, you couldn't make enough inventory. You couldn't make enough product to satisfy. Then all of a sudden, toward the end of '06, there's two and quarter million tons of inventory on the ground, even though the end-use market was pretty good, like it is today. There are 1,700 rigs drilling in the U.S. Maybe there was a bit of a drop in footage, but not enough to have caused the shutdowns that we've gone through recently. So it's not just the distributors. To me, the end-users that are giving the signals to the distributors have just as much difficulty in determining how much product they're going to need and what their activity is going to be as well.

CALLAWAY: I want to move on to mergers and acquisitions. How big is too big?

Joe, I'll let you respond first to this, and then I want any or all of you to chime in on this. But let me read how the *Wall Street Journal* wrote up the acquisition of IPSCO. "The \$7.66 billion deal that puts U.S. steelmaker IPSCO in the hands of a Swedish company shows how strong European steel prices and lower stock values have made North American steelmakers vulnerable to foreign companies eager to gain access to the U.S. market." Joe, what's your response to this interpretive first paragraph of the news story?

RUSSO: Obviously, I believe that the strong Euro probably made the cost a bit better for them, in terms of their currencies, but I don't think that has anything to do with why they purchased a North American supplier. They wanted to have a major presence in North America.

CALLAWAY: Does this transaction reveal North American vulnerability to foreign companies eager to gain access to the U.S. market?

RUSSO: Well, I think that there has been a lot of consolidation from foreign companies coming into North America. That's a fact.



CALLAWAY: What do you think, Mark?

MILLETT: Personally, I think it's scary. If you look around today, probably 55 percent or so of our national capacity is in the hands of foreign interest.

CALLAWAY: How do you feel about that?

MILLETT: As a Brit or as an American?

(Laughter.)

CALLAWAY: You tell me. Give us any interpretations. Is this good for steel?

MILLETT: The whole series of rationalization, consolidation and globalization, I think, is excellent for the steel industry in general. Because as we've said, it brings pricing power, it brings discipline to the industry, and should allow us to sustain higher values going forward. I think the investment world recognizes that today. From SDI's perspective, the bigger, the better for the other companies. As they grow bigger, they grow a little more

bureaucratic, the costs inflate, the customer service deteriorates a little bit, and it gives the little guy, SDI, a greater advantage in the marketplace. So I would say go for it.

CALLAWAY: Giff, what do you think?

DAUGHTRIDGE: In the *Wall Street Journal*, the question was, How big is too big? I think *big* is the wrong word or the wrong question. The questions about consolidation are:

Is that new company, new entity, going to be more efficient? Are you going to be able to make a return? Are you going to be able to grow your customers so you can grow your company? Where are the efficiencies? Is it in cost, is it in quality, is it in product mix? What other ways are you going to do a better job of serving the marketplace?

CALLAWAY: But can you make generalizations about the questions that you just raised? I mean, we've heard one really interesting generalization, and that is the big bureaucratic structure that follows it. Other companies will say, "We'll be nimble and move right in there."

DAUGHTRIDGE: There is no question, as you get bigger, there are issues with managing bigger companies. In the beginning, if it isn't a good fit, then you're not getting all the advantages. All the synergies aren't



necessarily tangible — sometimes they're a little bit abstract and it takes some vision to see them. There has been some very good work done in the area of consolidation in some of that vision, but yes, companies can get bureaucratic. Yes, you do start adding layers. Yes, your decision-making slows down, and yes, quicker companies are able to react faster. So I think it's not a question of big, it's whether you are improving your company, the overall entity, with these consolidations. If the answer to that is yes, then you've done a good thing. If you've gotten big just to get big, then you probably won't improve.

CALLAWAY: I want to follow up on this *Wall Street Journal* piece. I was very fascinated that the lead paragraph of what should have been a straightforward news dispatch had this kind of tone to it, vulnerable to Europe, et cetera. How do you feel about that whole notion that North America is vulnerable and this transaction shows it?

DAUGHTRIDGE: That specifically discusses North America, but look at ArcelorMittal, where number one and number two come together. Consider yesterday's headline in aluminum, with Alcan and Alcoa possibly coming together. I don't know if *vulnerable* is the right word or not, but I don't know why anybody thinks anybody can't be taken over by anybody else.

CALLAWAY: So you're saying everybody is in play?

DAUGHTRIDGE: Oh, yes. It's strictly a question of the value you can bring and then the overall valuation of what someone is willing to pay. But certainly all the public companies are in play.

CALLAWAY: Len, you know something about mergers and acquisitions. Tell us about what you've seen over the years with your own company, what it started with and what it is today.

CHUDEREWICZ: Well, I can speak of the last three years that I've been involved with Mittal Steel. I came on when it was Ispat Inland, and then we purchased ISG, and now we are Arcelor-Mittal. So it's been an interesting three years, that's for sure. As far as ArcelorMittal goes, there's Giff's comment

about being big and that it's tougher to manage than being small. I think that's our challenge at Arcelor-Mittal, to try to react quickly, to try to act like a small company. Yet we are a very large company, and there are some benefits to being a large company, through consolidation, and trying to leverage your strengths. If I were to comment just on the three years' experience, what I see is, once a company is taken over, what we really do is take a look at that company and learn as much as we can from it. It's really a knowledge acquisition, if you will. We have what's called KMPs every year, where every company comes and we talk about different topics — iron producing, steel producing, or some other special topic — to try to learn from those other companies, truly get the best knowledge and the best practices and try to integrate them into the new company. In our case, we were moving from Ispat Inland to Mittal Steel USA with the acquisition of ISG.

CALLAWAY: Do you make that kind of inquiry prior to somebody on one given day saying, "Let's think about acquiring this company"?

CHUDEREWICZ: Yes.

CALLAWAY: Do you mean you have to look at that stuff even before you seriously move?

CHUDEREWICZ: Sure. And again, I'm not involved in a lot of those decisions, but the ones I have been involved in, you go and look. We have people all the time doing due diligence, looking at pretty much every company out there to see what would be a good fit and what wouldn't be a good fit. A good example was the Arcelor-Mittal combination. If you look at that, it fits like pieces of a puzzle. I mean, wherever Mittal wasn't strong, Arcelor was.

CALLAWAY: Talk about this more. Where were the strengths and what were the things that worked?

CHUDEREWICZ: Again, you can just look from continent to continent where Arcelor was bidding directly against Mittal on trying to go forward, and they basically had similar strategies. I think it was a good move to acquire Arcelor. Europe is a good example. Mittal is in Eastern Europe, Arcelor was in Western Europe. Mittal wasn't strong in South America, but Arcelor was. Mittal was strong in Africa, but Arcelor wasn't. So if you go all around the world, the pieces really fit. When you look at acquisition in general and what we've learned from various acquisitions and trying to put a company together — for example, the ISG acquisition — the key point



Alain F.
Bourruet-Aubertot



out of that, in my opinion, is the relationship with the Steelworkers Union. We are now working together, going forward to be more efficient. In the past, we haven't been as efficient.

CALLAWAY: Now, when you say "efficient" in terms of labor unions, does that mean that you had to have candid conversations about restructuring the contract and maybe having some layoffs?

CHUDEREWICZ: Yes. Fundamental change was brought about when ISG was created, in my opinion. I think there have been a number of key points where fundamental change was created. When Nucor came along to challenge the domestic steel industry, we got away from the volume game, if you will, that everybody was playing. I don't think people intentionally tried not to make money, they just didn't know how under the old rules of "volume, volume, volume." Without volume, they didn't know how to make money.

I think the fundamental change with the steelworkers has been more efficiency. We pay more money, we have higher incentive-type bonus programs, we pay for more efficiency, we work together, we're more leanly manned. I think the steelworkers have joined the fight to survive and to be competitive and to be more efficient. That was definitely a lesson from the ISG acquisition that we've incorporated into Mittal USA, and I know Mr. Mittal feels that way about working together with the labor unions worldwide. When you look at the American steel industry, we really haven't invested. People will argue with me about this, but it's all relative. We spent hundreds of millions of dollars, but when you start looking at some of the other countries — Brazil, Canada (Dofasco, in particular) — a lot of money has been invested in facilities. We haven't done a lot of that in the States. That ties back into the fact that there hasn't been enough cash, and you try to sprinkle around what little cash you have.

CALLAWAY: But that's changing.

CHUDEREWICZ: That's definitely changing. Again, we're investing and we're investing appropriately with equipment. We're going to continue to invest and focus

our efforts, and continue to try to be the most admired steel company in the world.

CALLAWAY: Len, we'd like to talk about best practices in these discussions. Suppose I were to invite you to, say, a business school seminar and ask you to talk for a few minutes about how you acculturate an acquisition or a merger. Suppose I ask you to talk about a worst practice or a learning experience where this didn't work out. Does anything come to mind that was problematic along the way, anything with one of these acquisitions where you learned the hard way?

CHUDEREWICZ: I think a good place to start is the learning, listening to people, the knowledge sharing that we're talking about. It really gets into communi-

cation. One thing I've learned in 30-some years in this business: it's all about people and it's all about getting people to work together. Again, we used to be five different steel companies on the flat roll side in the U.S. We're worldwide, different cultures, different people. But I think some things work and some things don't.

CALLAWAY: Such as?

CHUDEREWICZ: Communication. You have to

have open communication throughout the organization. It amazes me when I go places and talk to people. One of my analogies is when you pour information in at the top, and then you go talk to someone at the bottom, and nothing comes out — or something totally different comes out. So I think communication is definitely key. And communication is tougher the bigger you get. It's the same problem, it's just a more difficult problem. It gets into building trust, forming a team to do something. This is easily done in a smaller organization, a little more difficult in a larger organization. People can get enamored with "I'm on the team, we're having fun," but what are they really doing?

I think another key to ArcelorMittal is that it's performance based. There are no ifs, ands or buts about it, we're there to make money. We're there to take care of customers, to help the community, to do what a good business would do, but the bottom line is we're there to make a buck as well, and do it as efficiently as we can. You can't do that without getting people to work together, using all the pluses around you, and trying





to minimize the negatives in all the pieces that you are trying to put together worldwide. That is an advantage, worldwide; we have opportunities in various countries that we don't have in the U.S. and vice versa.

CALLAWAY: Larry Brockway, suppose I were a magazine writer and I wrote a paragraph that said, "When Larry Brockway goes to bed at night, he thinks about his family and he thinks about his friends, but he's got this recurring nightmare that he's going to wake up one morning and U. S. Steel has been purchased by somebody in India, somebody in Japan, somebody in Russia — I don't know, somebody in Sweden." (Laughter.) Do you lie awake nights thinking, anticipating or worrying about that eventuality?

BROCKWAY: No. What I think that means is that U. S. Steel, or many of the companies here, have created value for our stakeholders over the last couple years. SSAB paid 7, 8 times EBIT for IPSCO. Years ago, people were lucky to get two to three, four to five times. What that means is we've generated a business that has sustainability, that we've actually made our company worth something. So if people are interested — and I think half of this audience has read stories about people interested in U. S. Steel or even Nucor, Steel Dynamics or definitely IPSCO — it's just a sign of the times. It means our industry is back, it's strong, it's sustainable and we've changed the business model.

One of the things we didn't really talk about with getting bigger is a company's fixed costs. One of the things we did as an industry over the last couple years is take out a lot of the fixed costs through consolidation by getting synergies; or if the fixed costs are still there, you allocate them over more tons. Whatever way you do it, you're reducing your cost per ton. With SSAB coming in and looking at IPSCO, or with any of the other mergers

you've seen, typically they have to consider whether they can leverage their R&D across more tons, whether they can bring their best practices in to reduce costs per ton. I think you're going to continue to see value creation as long as people can come in and look at Company A and Company B, put the two together and recognize value creation. Getting bigger just to get bigger doesn't make sense.

CALLAWAY: And you can do it intelligently and create value?

BROCKWAY: Yes.

CALLAWAY: I want to go back to your answer. What I'm hearing you say is, "We've got this U. S. Steel business in good shape, and if somebody comes along, somebody comes along." Is that what I'm hearing you say?

BROCKWAY: Well, we're clearly not for sale, but if the right value is out there —

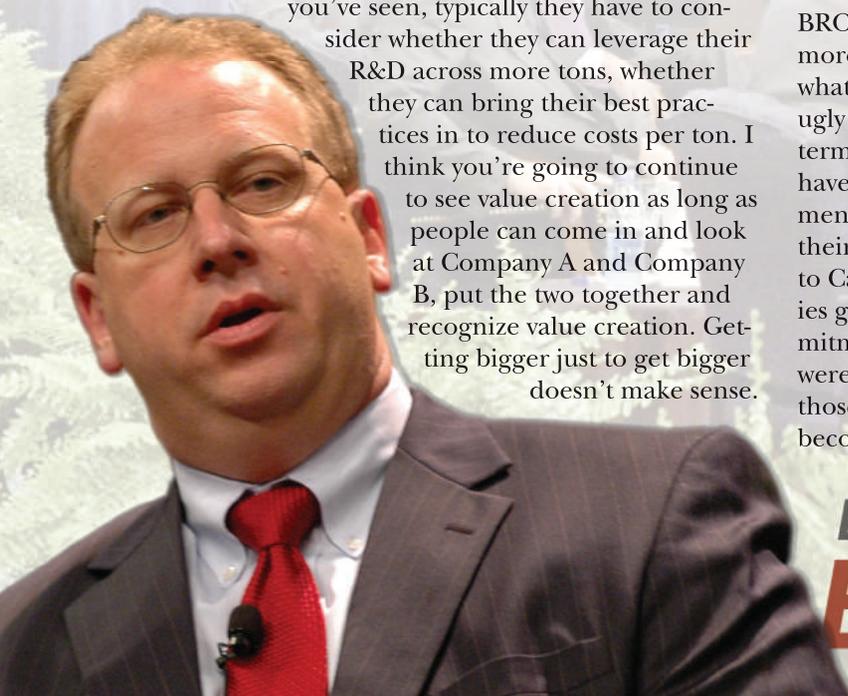
CALLAWAY: I don't mean that you're walking around the boardroom saying, "Well, let's put this company up for sale next week." Let's assume that's not the case. But I'm talking about somebody coming in and buying you. If you're in good shape, you get a nice payday, you're okay.

BROCKWAY: If you're in Joe's shoes, in IPSCO's case, they're going to be part of a bigger global entity. At that point, you have a bigger footprint, you're creating more niches, you're more sustainable. At the end of the day there is an SSAB-IPSCO transaction. Is that the end deal? ISG may have thought it was the end deal when they combined with Mittal. Did anybody foresee ArcelorMittal? Nobody knows what may happen out there, and have any of these big mergers been failures yet? Not yet. Time will tell. But if there are reasons to bring two companies together, so be it.

CALLAWAY: Let's say that I'm a senator from Pennsylvania or the President of the United States, and I see that a bid has been made for U. S. Steel and Nucor is not far behind. I'm saying to myself, "This is bad for this country's prestige. This is conceivably bad for national security. I don't want China holding U. S. Steel, I don't want Russia owning Nucor —"

BROCKWAY: Well, social issues are going to become more and more problematic as you get bigger. Look at what Mittal went through in Luxembourg. It even got ugly for a while — some name calling, some derogatory terms — but at the end of the day, people are going to have to overcome that. Consider the recent announcement about Alcoa pursuing Alcan. If you were to look at their press release, they had to make a big commitment to Canada, they had to make a big commitment in monies going into the country, they had to make a big commitment to the Canadian workforce. And I think if that were to happen in the U.S., you're going to see more of those types of things. Social-political issues are going to become important.

Larry T.
Brockway





CALLAWAY: So you're brought into the White House, and the President says, "I know all about global consolidation. That's supposed to be a pretty good thing, with its greater efficiencies. I'm a globalization guy. But I'm telling you there's a national security issue here or a perception of it, and the American people aren't going to like this." What do you say to the President?

BROCKWAY: I think it's okay as long as you have the substance of operations here, the local businessmen have some say in the business, they still have control over how business operates, and the facilities are here. When people come in and shut down facilities, that's one thing. People can also come in and operate facilities and continue to operate them effectively and efficiently and bring some leverage of synergies and productivity. Then I think it's manageable. You look at what happened with a Chinese oil company wanting to acquire a U.S. oil company whose reserves were mostly in Thailand. Politics is going to enter into that kind of thing.

CALLAWAY: That's what I'm talking about. What do you say to this if you're protesting?

DAUGHTRIDGE: If we got to go to the White House and had an audience with the President, the first thing we'd say is, "Would you please start enforcing all the trade laws that are already on the books?"

BROCKWAY: Absolutely.

DAUGHTRIDGE: So if we had access to the guy, that would be the first conversation we'd have to have.

CALLAWAY: But now you have the conversation about somebody in China or somebody around the world who is going to purchase Nucor. Is there a national security issue or a national prestige issue that should come into play?

DAUGHTRIDGE: Absolutely, that perception is out there. Legislatively and legally, what the issues would be, I don't know. I have no knowledge of that kind of detail on the law other than some kind of government act that says, "Steel is too important to our security, we're not going to let this happen." Without them stepping in and doing that, I believe the markets are what they are, and if somebody finds an evaluation that makes sense to the

shareholders, then the course of business is going to take its shape.

CALLAWAY: Len?

CHUDEREWICZ: I think the key is if it's a private company, a valid, private, open-company, transparent transaction, it's okay. But in a lot of these transactions, and particularly when you talk about China, you almost have the government buying an American company.

CALLAWAY: It would be a state-owned purchase of an American asset?

CHUDEREWICZ: Yes, and I realize there's a fine line there, but I think that's the distinction. If you've got the Chinese government buying up companies in America, that's definitely a problem. This is true whether it's China some other country that really doesn't follow the same rules, nor do they have the same transparency that we do.

CALLAWAY: Talking about mergers and acquisitions, do any of you see China in the next five to 10 years privatizing enough of its steel resources that indeed it will come to the mergers and acquisition conversation as a private entity? Do you see China moving in that direction, Len?

CHUDEREWICZ: We're certainly hoping so. We've

bought into China to some extent, and we hope to participate in the consolidation of the steel industry in China. We've been working with governments throughout the world, and as we work with them, they tend to move more and more toward the private ownership side of the equation. I would hope that China would do that. I really don't know, but I would hope that they would move in that direction. They started to move in that direction. They haven't gone far enough yet.

CALLAWAY: I can't resist asking you about the big story in the *Wall Street Journal*, talking about moving in new directions, about Mr. Mittal using his private investment funds to get into oil. Is this the next conversation in terms of mergers and acquisitions? You're going to control your energy costs?

CHUDEREWICZ: I really can't comment on that one. (Laughter.) That's really not part of ArcelorMittal. That's Mr. Mittal —





CALLAWAY: But that's Mr. Mittal's empire, and is there a synergy there that we ought to take note of?

CHUDEREWICZ: Well, we truly are vertically integrated throughout the world, and controlling energy costs could be viewed as an extension of that vertical integration.

CALLAWAY: You want to get in the oil business, Mr. Brockway?

BROCKWAY: We did, actually. (Laughter.) And we found there weren't a lot of synergies to take advantage of to operate the two companies together.

CALLAWAY: All right. Now, I know we're supposed to talk about transportation, and we're supposed to talk about raw materials. But time is flying and I want to get into the area of recruiting a new generation of people into the steel industry. I also want to get the audience involved here. I want to ask for a show of hands in this audience. Raise your hand if you think you're going to retire sometime in the next five to 10 years.

This raises two questions. One is the newcomer question: What are you doing to attract new people? The second is, What are you doing to attract a huge number of people in management or those who are mature workers in the steel industry and need to be replaced?

Mark, I'll start with you. I hear rumors that the steel industry has changed. Why should I seriously consider coming into the steel industry as a career choice?

MILLETT: Well, first, John, I don't know whether the brightest and best talent are actually coming to us and asking that question. I think the industry — at least SDI — is actually hunting them down as opposed to them being attracted to us. Truly the industry has changed. It's dynamic. I think once you get young engineers into your organization, they see that steel is an incredibly exciting venue. There are sparks and liquid metal and slab casters and all these rolling mills.

From an engineering standpoint, it's incredibly exciting, but you've got to get them there to experience that. You really do. And we're having the toughest time attracting talent. You know, the industry unfortunately still has a little bit of a smokestack

image out there with our young people. We're also at a disadvantage because our steel mills — with the exception of Nucor's Berkeley plant in Charleston — they're not located in the best of places. (Laughter.)

CALLAWAY: Are you making a value judgment about Gary, Indiana? (Laughter.) Gary, Indiana, is a beautiful, beautiful community.

MILLETT: Yes, and there's a generational change in all honesty. I think someone mentioned at breakfast that the average age of the organization is 50.

CALLAWAY: 52.

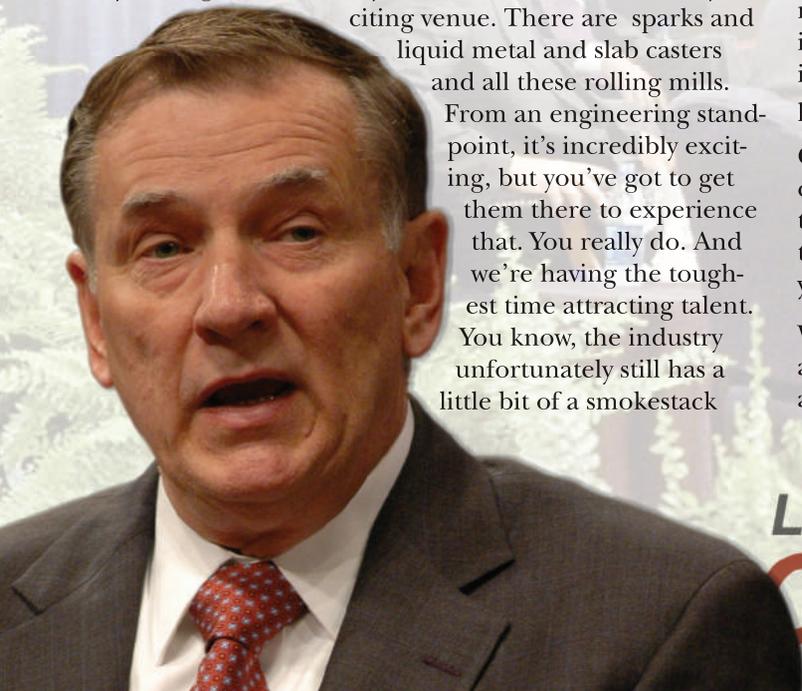
MILLETT: 52. Incredibly high. Which goes back to your point, with a show of hands: the organization is about to retire. But our young people today, their values have changed. I got in the industry, as Mike did, in '83 — and people worked, or lived to work. We all spent hours and hours and hours at the mill on new projects, any project, and that was our life. Today's generation, they work to live. They would prefer a 40-hour work week. They want to live in a nice area where they've got amenities and culture and activities. And so attracting them to Gary, Indiana, northeast Indiana, to Arkansas, to Texas, that's a pretty tough challenge on our part.

CALLAWAY: Alain, how are you doing on recruiting as a supplier?

BOURUETAUBERTOT: I think the problem is very similar. For many suppliers, to have a very good knowledge of the steelmaking process is critical, so we are facing the same issues of recruiting and attracting and retaining talent. I would say the situation is improving compared to what it was a couple years ago. The same way that the multiples have increased in valuing the steel companies, reflects the fact that this industry is more attractive. There is investment going on, there is expansion, there is growth. And the fact that there is also a need for talent is also attractive for younger people.

CALLAWAY: Well, that brings us to Mike Wagner, because you have an exciting story about starting something, and you have an exciting story, if I'm not mistaken, about a relationship with a university. Talk about your business and about the recruitment issue.

WAGNER: Recruitment into the industry is certainly a long-term process. You mentioned *Wall Street Journal* articles and talked about valuations and how things for



Leonard H.
Chuderewicz

steel are very, very positive. As young people hear those things about steel, they do have a little bit different perspective on the steel industry in general. If you look at how SeverCorr is trying to attract people down the road, we have a unique relationship with Mississippi State University. They have a program called the CAVS program, the Center for Advanced Vehicular Studies. And since we're a start-up and have chosen not to make a large investment in an R&D company or a department, we actually tap into the resources at Mississippi State University. They work with us, work with customers on steel issues, advancement of steel, how steel can become more prominent in automotive vehicles. They go hand in hand with us to customers, really as our technical resource. The other side of that is we get exposure to a large university in the South that is learning more and more about steel. So we get an advantage on the company side as it relates to customers and industry, but we also get more and more people connected to SeverCorr and to steel. Down the road, we have that avenue by which people will go to Mississippi State, come through the program, and then eventually come and work for us. We also have started conversations with the University of Alabama, only 45 minutes away. So tapping into those resources, and continuing to have a successful industry, improves valuations in the company.

I think young people coming in also want to look globally. A lot of kids go through school and do a semester or year abroad.

They don't look at coming to work and staying in one spot. They want mobility, they want movement. And the ability to look internationally for growth in companies is a real plus. As the steel industry really becomes global, as everyone has talked about for years, there are some opportunities for people to come in and not just be in Columbus, Mississippi, or not just be in Gary, Indiana. Look at ArcelorMittal. There are tremendous opportunities. Len talked about all the different continents on which they're located; you really can move within that company. It's not just moving within two or three divisions of a company, where one is in Chicago, one is in Pittsburgh and the other is in Cleveland — where would you like to live?



CALLAWAY: I'm glad you made that point. Giff, I was telling you that I had seen your campaign, Nucor's campaign, which focuses on environmental issues — huge, four-page ads in the *Wall Street Journal*. And I was thinking, "They must really be paying attention to Al Gore and the whole campaign for global warming." But then I got to thinking as I was listening to these answers, that that campaign might actually also be effective in terms of the recruitment of younger people who care about these issues, maybe in ways that an older generation didn't. Can you comment on the recruitment issues and maybe a little on that campaign?

DAUGHTRIDGE: Certainly an arm of that piece is aimed at students. Clearly, when we talk about attracting students, that's not the way it works. We're not having students come to us. It's exactly what has been said: we have to go after them. We view it as a mining operation. I'm not saying Nucor knows an awful lot about mining,

but we know that mining takes energy, it takes logistics, it takes resources, it takes planning. And to mine these students and find a way to get them into the steel industry in general, and Nucor in particular, it takes the same kind of effort that mining does. So that's the way we view it.

CALLAWAY: What report card grade would you give your corporation for its activities in this area of recruitment?

DAUGHTRIDGE: I would say that, like a lot of people entering college, our GPA is rising over time.

I would say we weren't very good before, but we're getting very good and I think we're going to be excellent. We have internship programs. Intern programs started out as summer help, then summer jobs, and we don't view it that way at all. We want to get the people who are serious about a career. Not necessarily the people looking for the highest-paying summer job, but people who are trying to find a place they can call home and where they can build a long, successful career. But when they come, we utilize them that way.

CALLAWAY: In other words, you use them as communicators on this issue. And they see other colleagues of theirs who are young.



DAUGHTRIDGE: Yes, we think the message that has to go back is that it's exciting, it's hard work, you get a lot of responsibility right off the bat — because that's the kind of people we want. We don't want people to say, "You know, this is a nice bureaucratic company. I could probably get lost in here somewhere and make a nice career out of this." We want people to say, "I can make a difference today, and they're willing to be judged on that." And that's not every college senior out there. But if you do a good job of mining, you're going to find the nuggets, and they're the people who are going to lead this industry.

CALLAWAY: Giff, let me just follow up. You saw the number of hands raised in this audience of persons who are going to retire in the next five to 10 years, which is another area of recruitment different than the youngster. If you went to Nucor's middle management population and asked that question, would you see a similar show of hands, and if so, are you doing anything about that issue?

DAUGHTRIDGE: I think you would see similar results. I'm not sure what the percentage of hands raised was. I do want to point out that Mark called everybody that's 52 in here very old. I think he said what a high number 52 was. It used to be high, but it's not that high anymore. But it's a process of development. Look at the people in the companies represented on this panel. We all view ourselves as growth companies. There's nothing stagnant, there's nothing orderly about the succession rate. We need more people. If nobody retired, we'd still need more people because we're going to grow our businesses.

CALLAWAY: That's a good point.

DAUGHTRIDGE: So it's a question of development.

How good are we doing with the people — not only the ones we can mine and bring into the industry, but what kind of job are you doing to develop the folks that we're working with every day? That's the challenge.

CALLAWAY: Len, could you comment

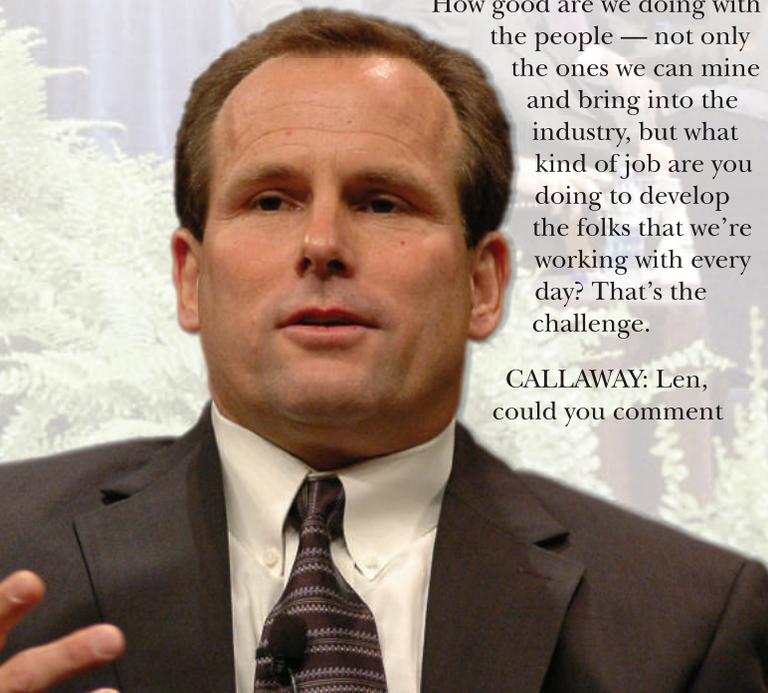
on Mike's point when he said, "Well, no, you're not just going to be in Mississippi, you're not just going to be in Gary, Indiana"? Is it fair to say, if I talk to you about coming to work for Mittal, that I could have a global experience?

CHUDEREWICZ: Absolutely. We're in the same boat as everybody else in terms of needing qualified people. You know, it takes years, years of training, years of education, years of experience to get folks up to the level that we're talking about here. And how do you get them? You either develop them internally or you hire them away from someone else. Different people try different approaches. You know, you kind of have to do all of the above. In our case — and we've been recruiting — we're trying to address two issues now at Mittal USA. One is the demographics issue. People are going to be leaving in the next five to 10 years, so we're definitely in a hiring mode. The other is we're recognizing a need for additional technical talent that really has been depleted over the years with all the bankruptcies and the companies that now form Mittal USA. I'm out there talking to people as much as I can, trying to recruit, talking to college grads to try to get them to come onboard with Mittal USA.

CALLAWAY: Do you use signing bonuses?

CHUDEREWICZ: Typically not signing bonuses. We basically pay the going rate for certain skills in the marketplace, and then we have our own bonus and incentive plan as they come onboard. But I think we have a great sale. Our problem is people don't really know Mittal USA as it exists today. Unfortunately, they remember LTV and Bethlehem and the steel companies that went bankrupt, where people have lost their pensions and healthcare, and there's a lot of word of mouth out there that doesn't paint a pretty picture. But we are a new steel company. We are the combination of all those steel companies, and we're going forward. We're going to grow, we're going to invest, we're going to hire people, we're going to develop and train those people, and the opportunity is tremendous within Mittal USA. Typically a steel company had one or two locations. We have 14 different locations in the U.S., plus Canada and Europe. That's a great selling point to people, that pretty much any opportunity you would care to aspire to, you could probably reach it within ArcelorMittal.

CALLAWAY: Given what's in the pipeline, how many years will it be until there's a minority or a woman sitting on this panel? What do you see?



Giffin F.
Daughtridge



CHUDEREWICZ: I really don't know. I would hope shortly.

CALLAWAY: What do you think, Larry? If you had to go into U. S. Steel's population, five years from now, eight years from now, what would you say to that question?

BROCKWAY: We could do it right now.

CALLAWAY: You could do it now?

BROCKWAY: My boss right now, our CFO, is a woman. Tony Bridge, our vice president of engineering, is an African-American. We're there, but we're not doing enough yet. We need to do more with the diversity. For instance, at U. S. Steel our focus, our thinking on recruiting, is that we've gotten out of the mix for quite a while, like many of the companies, and it wasn't a very sexy industry for people to come into. But we've had to make a commitment. I hate to tell you how much our exhibit — what we affectionately call the thunder dome in the back of the exhibit hall — costs us, and how much it costs us to bring it out to these events or the Hispanic Society of Engineers or the Black Society of Engineers. But we need to do that because we need to recruit the best and brightest, and we need to recruit the people that represent America today. Not just white males, that majority who is 52 years old. We need to get more women, we need to get more minorities, we need to get the best and brightest.



CALLAWAY: Because America is your customer?

BROCKWAY: That's right.

CALLAWAY: These are your people?

BROCKWAY: And we've got to match the demographics we have to choose from.

CALLAWAY: We've been asked to talk about another area. What is going on in research and development in this business?

DAUGHTRIDGE: From Nucor's point of view, we're very excited about development. The supplier industry has taken on a lot of pure research and done some things, but we do a lot more development, some bordering on research and some just basically incremental

improvements. We work very hard at it every day, and at Hertford County we ask, "How are you going to get better? What are you going to try?" There is no fear of failure. Try everything you can that's going to give you some small advantage, whether it's an incremental gain in productivity or cost or quality. If I had to pick something, I would say it's our Castrip operation, where we've got a facility and it looks exactly like a commercial production facility. It has cranes and hot metal and equipment to take off coils, but it's very much a lab as we work through the process, quality, applications and grades. That's as close to real research in steelmaking as we have.

CALLAWAY: Is it fair to say that it is an ongoing process to keep your eyes open for incremental progress at Nucor, as opposed to the pure research department?

DAUGHTRIDGE: Our culture is such that it's not just us, it's everybody. Folks work hard in the steel mills everywhere. From our team, whether it's Hertford County or anywhere else, we fully expect today to be better than yesterday. That's on productivity, cost and quality. We measure those things closely. We look at them weekly, and we monitor them. There are people who have absolute responsibility for each area of those things. I'm not sure if it's at a point of "grow or die," but there are good companies out

there that make our product. We're basically in commodity businesses, and we've got to continue improving to survive and thrive.

CALLAWAY: Larry, what are you excited about at U. S. Steel?

BROCKWAY: Giff's statement about continuous improvement really touches home. We have three research facilities. We have an auto center in Troy, Michigan, where we focus on working with our customer and making new product applications. The result is that we've been able to create some new ultralight steel for the auto applications. At the same time, we can't just look at product applications in a particular sector; we have to look at processes. That's where our research center in Pittsburgh, as well as one in Košice, really helped, because it's very much a cooperative process with our



operations. If an attending mill is having a problem, they'll contact the research center, they'll go back and forth because status quo doesn't work. You have to continually improve.

Another focus we'll touch upon a little bit later is energy conservation. That's going to be a big focus. I don't think any of us could not rely on some form of R&D or some form of technology. We have to continuously improve or else we'll get left behind.

CALLAWAY: Len, what are you excited about in R&D?

CHUDEREWICZ: We have tremendous R&D facilities in Europe as well as in the U.S. The former Inland facilities are the basis, and with the acquisition of ISG, the Bethlehem research facilities were also combined with Inland. So we have a lot of capability there. We don't really do a lot of what you would call basic research anymore. It's really product application with development and ultrahigh-strength steels. We cooperate with other companies in some regard to develop the products that are needed by our customers. We work very closely with those customers. To Larry's point, the other significant influence we have is not just in processing steel. How do we get more efficient, from ironmaking through steelmaking through cleaning and galvanized lines. How can we do better? The days of the research guys being off in the building doing strictly research are long gone. It's more product application, more process application in terms of how to do it more efficiently and how to do it better.

CALLAWAY: Is there anyone on this panel whose company is doing pure research?

BOURUET-AUBERTOT: As a supplier, I believe that the suppliers are doing a lot of R&D activity. I think there are two reasons for that. The first one is that the steel industry years ago

outsourced the R&D activity, in a lot of areas, whether it was process control or materials. The other reason is

that, in a more challenging environment, where you get the pressure from stronger, more sophisticated customers, you have to differentiate yourself. You have a drive to differentiate yourself to a very important differentiator, which is technology and innovation. If you want to strive as a supplier with the steel industry today, you have to invest in R&D, you have to invest in technology, and you have to differentiate yourself.

CALLAWAY: Did the steel companies get away from pure research departments simply in the context of reducing expenses? From a structural organic standpoint, was it a good scientific business decision to say "No, let the suppliers do this kind of work"?

BOURUET-AUBERTOT: I think the decision was forced because of the economic results and the economic situation for the steel companies in the past. When you look around the world, you still have steel companies, particularly in Asia, that have a scope of their business outside of steel, whether it's in refractories or in generating equipment. I don't know for sure, but I think the model we have, where you have suppliers through partnership that work together with the steel producers, is a better model than having a steel company trying to do a lot of things. What happens is that, in these companies in Asia, they have the subsidiaries working for them and the subsidiaries have also guaranteed business with the steel company. It's not a lot of incentive to be in the forefront of innovation when you do that. So I would also expect that this modeling you have with some companies in Asia would evolve as well. I think the model in North America and Europe is the right model. What matters is the partnership and the working relationship between suppliers and steelmakers.

CALLAWAY: But it does add extra cost factors for the supplier, doesn't it?

BOURUET-AUBERTOT: Absolutely. Absolutely, it does.

CALLAWAY: So it's another one of those pressure points, isn't it?

BOURUET-AUBERTOT: It's another pressure point, and the only way out is that you are successful in your R&D efforts and you create value. This value allows a return on this investment and also creates value for the customers. It has to be a win-win situation.

CALLAWAY: What are you excited about in R&D?

BOURUET-AUBERTOT: We talked about the aging population in the steel industry, the fact that a lot of



**Mark D.
Millett**

knowledge is going away, which means that you have to formalize this knowledge. You have to be more scientific about things. You cannot just rely on operators' experience, because these operators are retiring and they are leaving. An example of an innovation is the laser measuring for the thickness of the refractories in furnaces. That was an innovation a couple of years ago that was necessitated. There used to be people with a lot of experience who could read the thickness of a refractory lining in a furnace. These people are retiring, and that triggers the need for new technology. Today you can measure the thickness of a refractory lining in 20 seconds, and it's scientific. That's an example of a technology that is emerging. It is clearly the direction forward.

CALLAWAY: That is exciting. Joe Russo, how about you?

RUSSO: I'd like to give some examples from IPSCO. We do have an R&D group — always had one since the early '60s when the company started. In just the last three years, we've doubled the size of the group. I believe we're the only North American producer that has a group solely dedicated to the production of ERW grade pipelines, which is a major part of our business.

Just to give an overview, we do process and product development like everybody else, but we do have dedicated people in our R&D center that cross over to do R&D work as well. For the Northern pipelines, because of the fact that the pipelines will traverse discontinuous and continuous Perma-

frost, you have to be able to design the pipelines so that they not only withstand the hoop stress, but also have longitudinal strength. We have the ability to develop a steel grade in a welding practice such that there is sufficient ductility in the heat effective zone of the girth welds, which is the weakest area within a pipeline, and at the same time have sufficient weld overmatch. I'm talking about very high-strength steels, to be able to have sufficient overmatch to ensure that all the strength gets transferred into the pipe itself. By that, I mean that the weld must be able to withstand within a given size a certain amount of strength without breaking. So IPSCO has been in the forefront of that. We've utilized a lot of help from the Canadian laboratories and some government laboratories. We've utilized the Universi-

ties of Alberta, Columbia and McGill, in trying to help us develop some of the parameters that need to be put into the steel. We've also worked with MGP — the Mackenzie Gas Project, which is a consortium between Conoco Phillips, BP and Imperial Oil — on developing the specs, because some of this is a work in progress. We worked with various suppliers of welding wire, like Lincoln. That's one example where we brought everything together and implemented that in our mills. We're also the only company that has an X100 pipeline in the ground in North America. Another thing that we've done is that we would have our R&D people model certain applications, such as alternative melting technologies, and then marry that with our continuous improvement group to improve the process, while using what we learned or what we knew from the modeling to decrease the variability.

CALLAWAY: So I'm listening to a big, multifaceted focus on R&D.

RUSSO: For a small company, yes.

CALLAWAY: And this has paid off for you, relatively speaking.

RUSSO: We believe so.

CALLAWAY: Very interesting. Mike Wagner, what are you doing in this start-up with respect to R&D?

WAGNER: We bought the latest and greatest technology on every piece of equipment that we're going to install, so we start with a pretty strong playing field, as it relates to the equipment side. As it relates to R&D, SeverCorr

is a start-up company, so we don't have a lot of resources to do R&D, but our connections go back to Mississippi State. We're doing things there to help develop not only products long-term, as it relates to dual-phased steels and TRIP steels for the automotive industry, in conjunction with the CAVS program, but also as it relates to tubing, piping and some other things that will work in conjunction with them. We don't have a true R&D, but we have relationships with certain universities that help with that.

CALLAWAY: What are you excited about, Mark Millett?

MILLETT: I think the R&D obviously was decimated through the rationalization of everything, and it's more driven by commercial necessity now rather than just pure research. The equipment supply companies are





trying to differentiate themselves by coming up with new processes and thin strip casting. In our world, our commercial necessity is metallics, raw materials. You talk about America being a fertile place to grow steel production, and it is. Last year we imported 46 million tons of steel. There's space for a mill or two right there. But we've constrained ourselves because of the lack of, or perceived lack of, raw materials, and hence, our big involvement with Iron Dynamics over the years. We've spent a lot of money — a hundred million dollars plus on Iron Dynamics — that's finally showing the fruits of its labor. It's making about 20,000 tons of liquid iron products each month now. Our pursuit of the iron nugget technology in Minnesota would probably be a \$250 million investment. It's not research in the lab per se, but real-life, commercial research and development. That takes a little bit of guts, in all honesty, to commit that sort of capital.

CALLAWAY: Big capital. Len, if Al Gore were here, he would probably ask you, "What are you doing to reduce or lower your carbon footprint in this world absolutely taken up with the global warming issue?"

CHUDEREWICZ: For energy conservation from an environmental standpoint, and even from just overall cost, you need to minimize energy usage. We've been doing that over the years. We definitely have tried to emphasize cost reduction associated with energy projects. One statistic I can quote is, overall, the steel industry since 2005 has reduced CO₂ emissions by about 28 percent. So we are getting better. Smart business people want to lower their costs. By the same token, you don't want to pollute the environment. You don't want to create problems. You want to be as efficient as you can and be a responsible corporate citizen to help the community and the world.

CALLAWAY: Do you personally have any doubts about global warming? How do you feel about it?

CHUDEREWICZ: There's something going on. If you listen to Al Gore, I don't think you can discount everything he has to say.

I think there are extremists at every level. We are meeting the standards. We actually are below the Kyoto Accord standards. It's an argument of going forward and how that should be handled. I think it is heating up and we do need to do something. If you're going to err, why not err toward less emissions? It really gets down to money and how much money people are willing to put forth to go to alternate sources of energy. There's definitely something going on, and I don't think we can ignore it. We have to do something, but I'm not in a panic mode right now.

CALLAWAY: But this is how you spend part of your profits?

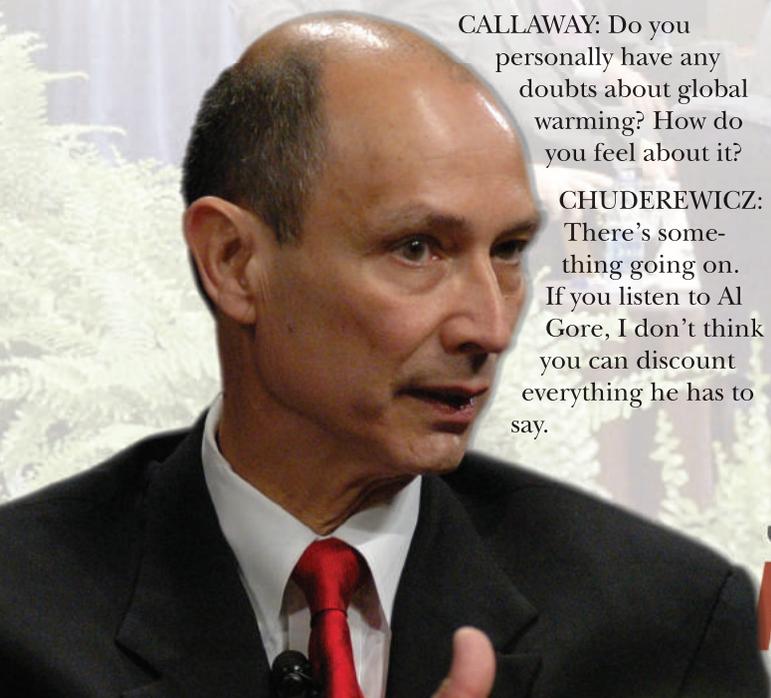
CHUDEREWICZ: Absolutely. Yes, on conservation.

CALLAWAY: Larry, what is U. S. Steel doing to lower its carbon footprint?

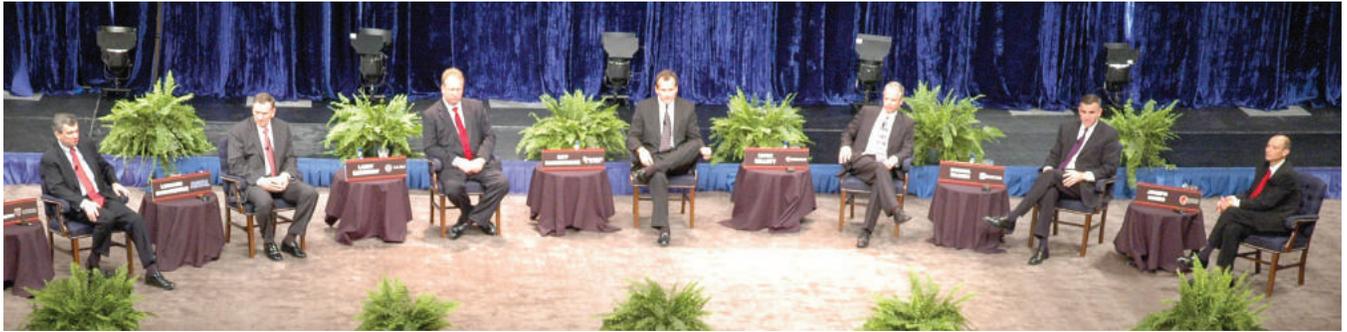
BROCKWAY: Well, let me step back a little bit. You made the comment about global warming and CO₂ emissions. While everybody wants to be a good environmental steward to the world, everybody has correlated global warming to CO₂ emissions. Having said that, the steel industry has probably one of the best track records of reducing CO₂ emissions because they have one of the best track records of energy conservation, energy retention and energy recycling. If you look at steel, steel is the most recyclable commodity in the world. Therefore, all the energy that was put into that to begin with is reused when it's recycled. Specifically, what are we doing at U. S. Steel? We're really trying to conserve energy. We're participating in industry studies, whether it's AIST, AISI or the Department of Energy studies. There are global forums, because we want a global solution to a global problem. What we're concerned about is some of the policy that may be out there now that's looking for a quick fix. And that doesn't necessarily work.

CALLAWAY: Could you give me an example of a quick fix that maybe one should be wary of?

BROCKWAY: The cap-and-trade program in Europe. We had an opportunity to participate in that. What has happened is utilities have gotten additional allowances versus manufacturers, and those competitors — say steel companies and aluminum companies — may not be treated the same. You get in the situation where all you're doing is a transfer, where you have production coming out of an area that actually has regulations, and moving it to countries that have no regulations. So you really haven't solved the problem. What we really have



Joseph D.
Russo



to do, whether it's CO₂ emissions or global warming, is come up with global solutions, not pinpoint solutions.

CALLAWAY: Giff, what specifically is Nucor doing to lower its carbon footprint?

DAUGHTRIDGE: We proudly make steel, and that's what we do. That's what the folks in this room are interested in. It is a carbon-based process, and there is going to be CO₂ emitted from the process. So, if we proudly make steel, by some kind of association, we proudly emit CO₂. It may be a horrible thing to say, but the world is going to use steel, and successful companies, for the long term, are going to continue to produce it. Having said that, the facts and figures show that the steel industry is far and away leading the charge on reducing energy consumption. The numbers I heard were 600 percent of what the Kyoto Treaty asked for, as far as 1990 rates. We're ahead of most industry. We're ahead of the City of Kyoto. But you're not going to fool Mother Nature. We're not going to find a way to make steel, at least in the near term, without creating CO₂. There are certain stoichiometric things we need. There are additions we make to steelmaking, and that's the way it's going to be.

The things we have done in terms of efficiency and heating less water and heating less offgas and getting the energy into steel are brilliant, and they're tactical things that were done on the ground floor by operators. The industry has done a very good job of that. And I agree, global warming is something we should think about. I'm with Larry, in that I'm not sure that there is a direct correlation from CO₂ to global warming, but I don't think in any way we need to hang our heads because our operations emit CO₂. We need to be smart, we need to be efficient; and the example I would use of global solutions is if you have two smokestacks, one is the United States and one is — we'll just pick somewhere at random — China.

CALLAWAY: That's a good example.

DAUGHTRIDGE: Just pick someplace. If you look at the smokestack in the United States and you look at the top half of the smokestack, what do you see? Usually

nothing. There are no visible emissions. You look, and you see the best available control technology, tremendous amounts of capital and technology. You're going to make sure what comes out of that top half. You see nothing. What's underneath the second half of the smokestack, the bottom half? We have wage-paying jobs, you have a middle class that's improving a quality of life. You have social benefits. We do a great job in other areas of the environment, and — hugely important — we provide a safe workplace. If you look at our injury and illness rates and our lost workday case rates in the steel industry, they're continuing to trend down because we care. We do a nice job of it over and above what OSHA requires of us. So there are a lot of costs involved in doing those things, but we do them.

Now, let's take a look at this other smokestack in China. What do you see coming out of the top? I don't know for sure, but it's brown and it's starting to circle the globe. There may be no control technology on it. And what's below the smokestack? There's an injury and illness rate, a fatality rate, seven times higher than the United States. I don't know how much concern is there, but it's much less concern about other environmental things that are going on. As far as wages are concerned, there is not much of a middle class and there is no improvement in quality of life. So, when we talk about global solutions and we talk about cap-and-trade, in this country, in North America, we don't have to hang our heads. We're doing a good job. We care and we're doing the right things. And just to implement cap-and-trade here in America through some sort of guilt or because it seems right by continuous repetition doesn't seem to make much sense.

(Applause.)

CALLAWAY: Mark, what can you say from a Steel Dynamics perspective?

MILLETT: Over the years, there has been a reticence by the people or by our politicians against nuclear energy. If you look at the energy or the electrical intensity that you need for a growing population like ours, that's the only environmentally friendly solution. Unfortunately, politicians want to placate their constituents, they want



to get voted in, they're career politicians generally, and unfortunately all these renewable energy sources, although they're good, I think they're short-term fixes.

In Wyoming, they generate electrical power with windmills on the Wind River range. That's visible pollution unto itself, and it's an incredibly expensive way of making a very little amount of power. This country needs a lot more power than windmills or solar panels. The Dutch got it right many years ago. They used to use windmills. They don't use them very much anymore.

CALLAWAY: Joe?

RUSSO: I'm sure there's some relationship between greenhouse gases and the environment or the weather or global warming — I don't know what that is. But I don't think the government should try and dictate a renewable portfolio and be concentrating on biofuels and windmills. As an aside, we like these wind towers because we sell a lot of plate into them. But wind towers and solar energy have to be a bit more comprehensive in what they do, because the energy generated in general by these alternates or renewables is a drop in the bucket. They need to get real and start supporting the nuclear group, because I don't see any other way that we're going to get out of the crisis that someday there are not going to be any fossil fuels. And I must add that they need to support more the development of clean coal technology and CO₂ concentration to be able to use the resources we have.

CALLAWAY: Alain, from a supplier standpoint, what are you doing?

BOURUET-AUBERTOT: First of all, the general context is that there are many more regulatory rules and policies there, and I think it's going to increase over the years. So that's a fact of life for all industries, including the steel industry.

As Larry said, there are a lot of good things for the steel industry, by the fact it can be recyclable, and I think that it's a multi-pronged approach. Consciousness improvement in steel operations is obviously

an important one. Recycling also is an important one, and in terms of new processes and innovations, it's up to the suppliers and the steelmakers to come up with new technologies that minimize the emissions.

CALLAWAY: I'd like to move on to the topic of safety. Are you improving your employees' safety culture and seeing financial benefits to your bottom line as a result of fewer accidents? Joe?

RUSSO: Yes, a couple things we have done were really significant. First, we came out with a very strong accountability policy, that people really are accountable for their safety, not just management. Second, every facility has to have its own safety business plan. The safety business plan outlines how that facility is going to conduct business and how the various safety committees function, what the goals are, et cetera.

CALLAWAY: I'm interested that you used the word *business*. You called it the safety business plan.

RUSSO: Right, we believe safety is a major part of our business.

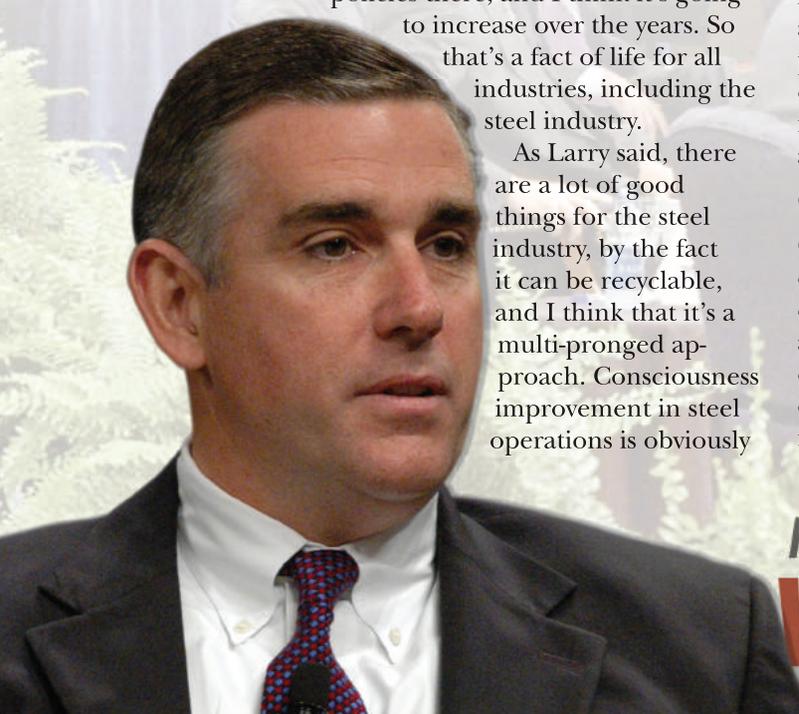
BROCKWAY: I'd be remiss if I didn't mention that we have a philosophy that every accident is preventable. Going forward, what we have is that the compensation for everybody in management is driven by a safety factor. Every Monday morning we have a meeting where we talk about operations, but the very first thing we talk about is safety.

CALLAWAY: Larry, let me interrupt. When you have those conversations, do you find that there are real, on-the-ground points that people make, such as, "This glass wall shouldn't be here"?

BROCKWAY: Exactly. If there is an instance, we learn from it and we take steps so that it doesn't happen again. Our board of directors are very involved in this process because we've benchmarked against various companies. Now that we've achieved a certain benchmark, we're looking at benchmarking potentially against other companies for continuous improvement.

CALLAWAY: What about you, Len?

CHUDEREWICZ: Yes, we're involved from Mr. Mittal on down. It's definitely a number-one priority at our company, the safety and health of our employees. It is a state of mind. This is important, this isn't someone else's responsibility, it the responsibility of all of us. I don't want it done quickly, I want it done safely. The old mentality that's out there is really difficult to change. I



Michael J.
Wagner

truly agree that every accident is preventable. Everybody should come to work and go home.

CALLAWAY: You want zero tolerance.

CHUDEREWICZ: Absolutely. It is a culture, and we try to benchmark and learn from each other throughout the world to try to come up with the best practices. The joint relationship with the steelworkers union is a good one, in that it is our job. It isn't a management problem versus a union problem.

DAUGHTRIDGE: As leaders, whatever the laws are, we have a moral responsibility to keep those folks safe. If they come in and they work hard, it's our obligation to find ways to keep them safe. But none of us can keep every person safe, so all the comments on personal responsibility are absolutely spot-on. We've got to give the training, the resources and what's expected — even demanded — of people. The industry has done nice job, and Nucor has done a good job leading it. At Hertford

County, we took it to another level, and we've partnered with OSHA. We said to OSHA, "You're invited here anytime." We became VPP; we got this designation in the VPP program called North Carolina Star. The idea is that, if these people are experts in safety, we have no secrets from them. There were five investigators at our plant for four days. We actually took all management out and said, "Just talk to the folks on the floor and we'll meet you on Thursday afternoon."

CALLAWAY: Very good. At this point, before we take questions from the audience, we have concluded the panel discussion. I would like to acknowledge this year's fine panel and say a very warm thank you.

KOENIG: John, I would like to thank you and the panelists for your great interaction, great enthusiasm and great feedback. I hope everyone enjoyed this forum and can leave with some additional information to help you in your business. ♦

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