

Embracing a Safety First Company Culture: The Impact on Employee Well-Being and the Bottom Line

Hazards are ever-present in the steel plant environment, and a heightened awareness and emphasis on safety is a necessary priority for our industry. This monthly column, coordinated by members of the AIST Safety & Health Technology Committee, focuses on procedures and practices to promote a safe working environment for everyone.



Authors

Laura Duvall (left)
Communications Representative,
California Steel Industries Inc., a Nucor-
JFE Co., Fontana, Calif., USA

Brad Bray (right)
Manager, Safety & Plant Protection,
California Steel Industries Inc., a Nucor-
JFE Co., Fontana, Calif., USA

Of paramount importance in business — particularly those that operate in the industrial and manufacturing space — is the cultivation of a safety first company culture and complete teammate (employee) buy-in. When teammates see management and supervisors leading by example, they become much more receptive to adopting that mindset. Living these values from the top down is critical to achieving not only a reduction in incidents and injuries, but also a boost in production.

Following its closure in 1983, the previously named Kaiser Steel, a Southern California-based steel manufacturing plant in 1984 opened under a new name: California Steel Industries (CSI). CSI operated as an independent entity under a shareholder agreement between JFE Steel (Japan) and Vale SA (Brazil). The company was acquired in February 2022 by a new majority shareholder, one of the largest steel producers in the U.S., Nucor Corp., which is now a partner with JFE Steel.

The two companies share a strong commonality in their safety first culture and CSI continues to benefit from new and improved safety initiatives offered by the vast network of resources available to them. Driving Nucor's safety first culture is the company's safety challenge: To become the world's safest steel company. CSI and several other Nucor divisions offer insight and inspiration as to how they achieve reduced or zero incidents, month over month, year over year.

After more than 30 years of focused teamwork since CSI's first formalized safety plan, it has only been strengthened in the years since. New opportunities constantly arise

to hear and share success stories across facilities nationwide.

CSI's biggest shift in safety culture began in the 1990s by officially putting a plan in writing. "CSI has experienced a cultural change since the implementation of an illness and injury prevention safety plan (IIPP)," said Brad Bray, manager of safety and plant protection at CSI. "Let's just say the (total recordable injury rate) was higher than we liked. CSI teammates successfully embraced the change in safety culture because they saw that it was really possible."

Safety measures, programs and teams rolled out in regular succession at CSI. In the mid-2000s, training based on behavioral science coupled with a focus on the big "industry killers" influenced a culture of accountability, and the late 2000s saw the development of Accident Prevention Teams (APT) and Voluntary Protection Program (VPP) teams.

"There have been many safety programs established that have had a significant impact in driving down our injury rates," Bray added. "In 2022, our efforts in safety resulted in achieving the lowest injury rate in the history of our company."

Two of the most recent safety initiatives undertaken are the SafeLead program and Hand Safety Challenge, and teammates are excited to adopt creative approaches with Nucor branch collaborations. CSI and other Nucor facilities share some of the same programs and projects, but they each have their own way of structuring their approach.

Similar to CSI's APT program, Nucor's bar mill in Jewett, Texas, USA, established health and safety teams in 2012. Like CSI, these teams cover all elements of the VPP, and

Comments are welcome.

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Please include your full name, company name, mailing address and email in all correspondence.

Figure 1



California Steel Industries safety first initiative graphic.

Figure 2



A meet and greet was held on 1 February 2022 to introduce the CSI teammates to key members of Nucor's leadership – including CSI's new general manager, Zach Moon – shortly after the acquisition was announced. The meet and greet was successful with nearly 600 teammates (roughly 70% of CSI's workforce) attending.

Figure 3



Teammates at California Steel Industries Inc.

select a monthly topic to review with teammates, such as mobile equipment, lockout/tagout, cranes, etc. “We try to get creative and make safety fun, so that it's something that you want to do,” said Nucor Steel-Texas' safety director Kyle Ingram. For example, the health and safety team designed their lockout/tagout audits as a scavenger hunt, where teammates would return with their findings and be rewarded for careful inspection.

Another topic for review, the mobile equipment pre-use inspection, was staged with six items that needed repair, such as a headlight not working, a hand brake not set, or low tire pressure.

While CSI concluded their 2022 Hand Safety contest in January 2023, the folks over at Nucor Steel Birmingham Inc. completed their Hand Safety Innovation Contest in 2021 and saw spectacular results. Projects were ranked throughout the year and displayed on a dashboard on the front of their intranet page. The end-of-year highest-ranking team was rewarded with a

choice from a prize package and a luncheon, complete with the managers grilling steaks.

“Our Hand Safety Innovation Contest helped our division decrease hand injuries by 82%,” said Caryl Gaiser, safety director at Nucor Steel Birmingham. “We believe this contest can be used by every division in Nucor. Because this contest was so successful, we chose to concentrate on Walking Working Surfaces for our 2022 Safety Innovation Contest.”

No-touch tools have had a tremendous impact on another of Nucor's recently acquired companies, Nucor Warehouse Systems (NWS), previously known as Hannibal Industries.

“One of the things we have started to heavily focus on is the use and innovation of no-touch tools,” said John Hernandez, safety supervisor at NWS Los Angeles. “We did two weeks of events with teammate participation and included awareness training and a lot of hand safety assessments by task.”

NWS team members underwent extensive training and engaged in activities that showed the difficulties

Figure 4



Birmingham Hand Safety Innovation Challenge winning team.

Figure 5



Hand Safety Challenge training.

they could face if they lost a finger or use of their hand. Activities included trying to tie their shoes and shooting a basketball.

“Overall, I would say that the cultural shift with Nucor is dramatic,” said Howard Yang, manager of environmental and quality, NWS Los Angeles. “There’s a lot more focus from the top down to really look at safety as one of our priorities involving every single teammate. That’s a big piece that Nucor has always pushed for, that safety really is everyone’s responsibility.”

Acquired in August 2021, NWS has been successful in reducing recordables by about 75% in the first year, and by about 87% in 2022. “These are easily some of the best numbers we have ever seen,” said Yang, “which is why I say the shift in safety culture is dramatic, but I think this shows that we’re taking it head on.”

Scott Deering, safety engineer, has been working at the NWS Houston location since the beginning of the acquisition and has seen huge strides in safety in a very short time.

“An important part of shifting mindsets and culture is greater personal accountability on the part of teammates,” said Deering. “I started at Nucor Steel—Berkeley in 2006 when they were in the midst of changing the culture. They went from about 100 recordables a year down to only one in 2022. That shift took about five to seven years, and after having some of their safest years, production increased. They thought that could never happen.”

“In my years, I’ve encountered perceptions that you can’t work in the steel industry without getting hurt; if you take all the safety plans, do all the lockout/tagout, etc., you’ll never achieve production goals,” Deering added, “but [at] Houston, our teams have taken huge steps in making sure they work safely, their teammates work safely, and production has increased.”

While Nucor has more than 300 locations, these examples demonstrate the benefit of adopting the Nucor Safety Challenge. Being present and remembering who we work safely for — our families, our friends, our communities — is at the core of CSI’s continued progress toward this goal. ♦

Figure 6



Safety upgrades at Nucor Warehouse Systems, which included painting walkways and adding guard rails.