

## Case Study: “I Choose to Take 2 for Safety”

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.

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Comments are welcome.

If you have questions about this topic or other safety issues, please contact [safetyfirst@aist.org](mailto:safetyfirst@aist.org).

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

In life, we can at many times be defined by the choices we make, both good and bad. As human beings, we are not perfect and should not try to be. We should, however, try to consistently do the right thing.

When it comes to safety, doing the right thing at work while someone is watching is easy. When not at work, at a different business or when no one is enforcing safe work practices, our free will can set in.

For the past few years, at CMC Steel Arizona’s fiscal midpoint, a decision was made to carry out a safety “Reality Check Meeting.” The idea was to look beyond the incident rate (IR) safety metric to truly see if work was being completed safely or not.

### Reality Check Meeting and Safety Analysis

In 2018, the first Reality Check Meeting took place. At the time — six months into the fiscal year — the company was in the middle of a safety record: zero recordable injuries.

The actual streak had reached 10 consecutive months with zero recordable injuries. While by itself it is a fantastic safety number, focusing on just the IR would have been inaccurate.

Numbers for first aids, near misses, property damages and liquid metal breaches were pulled for analysis.

For the first time at CMC Steel Arizona, research was done on a metric called severe injury or fatality (SIF) events, which can be divided into two subcategories: actual severe injury or fatality events (ASIF), and potential severe injury or fatality events (PSIF).

The data revealed that things were not as safe as originally thought due

to the zero recordable injuries, but what was the saving the day was the defense.

Injuries were still occurring, but PSIF near misses and property damages were astoundingly high. With those kinds of odds, changes needed to be made, and soon, or something bad would happen. The only reason for the zero recordable injuries was due to good case management and a little luck.

### What Was Done?

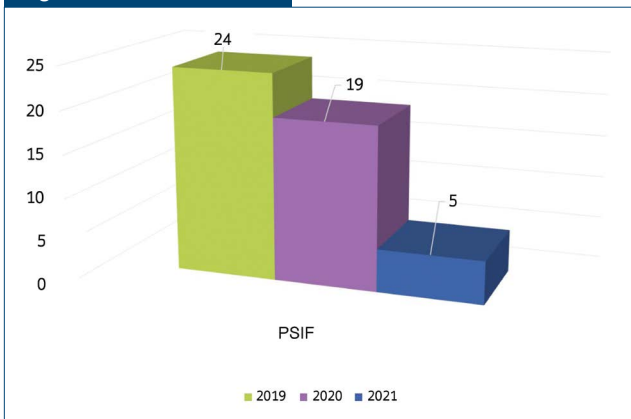
Each department took their individual data that the safety team compiled and set up preventive and corrective actions to combat the many different trends. Now that each department could see where the problem areas were, they could now focus on the low-hanging fruit. The fiscal year finished with only one recordable injury.

While only one recordable injury in a fiscal year is admirable, there was still much work to be done to decrease the number of PSIF events.

Every PSIF event that was identified had the realistic potential to permanently alter or end someone’s life. The most dangerous events that were happening in the plant weren’t the injury from a bee sting, or the wrist sprain that resulted in a couple physical therapy appointments, it was the 480V box that wasn’t locked out properly or the employee who accidentally walked under a suspended load near miss. In years past, these types of events were “just a near miss” and the employees would be told to pay more attention.

It was determined that rarely, if ever, were there quality investigations where root-cause analysis was performed and viable corrective

Figure 1



Potential severe injury or fatality (PSIF) 3-year comparison.

actions recommended. It seemed that since no one was hurt, the incident didn't receive the appropriate attention to prevent it from happening again. A new safety journey then began — a safety marathon, to be transparent. Having a low IR was no longer enough and hope was not a plan. The culture of safety excellence was improving.

The 2019 Reality Check Meeting focused on the word "tolerate." The goal was for each employee to come up with a personal safety pledge for themselves to stop tolerating unsafe actions and to address matters they see fellow employees do but usually ignore. Many people chose the personal pledge to stop texting while driving. The team was really starting to grasp the concept that safety starts at home. At work, people pledged to stop tolerating other employees not

wearing their personal protective equipment (PPE) properly or driving a forklift in an unsafe manner, to name a few.

Focus was still on PSIF events as well. This was the first 12-month period where these events were tracked and the data revealed where the focus really should be. Investigations needed to be conducted and issues needed to be solved before these potentially life-altering events severely hurt or killed someone.

In 2020, amid the COVID-19 pandemic, things had to be done a little differently. For the first time, the Reality Check Meetings had to be conducted via Zoom or Teams. There was concern that the meetings would not have the same impact as doing them in person, but as the company culture continued to grow, so did the acceptance of a new normal in meetings and trainings.

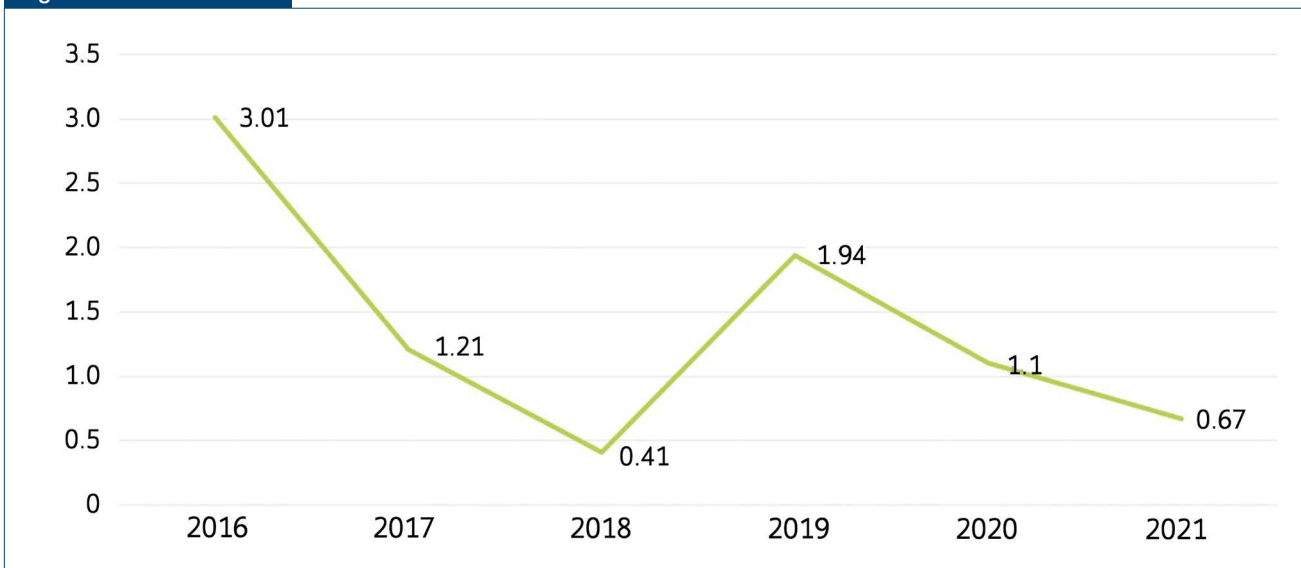
### Take 2 Program

The most significant PSIF event was suspended loads. Because of this, a decision was made to reintroduce an old safety program called "Take 2."

The Take 2 Program focuses on the idea of literally "taking two" — two seconds, two minutes, two hours, two days, etc., to make sure the job is completed safely. It is CMC Steel Arizona's way of promoting proactive safety.

The ways to "Take 2" include: getting trained before performing the task, inspecting PPE or getting the right PPE for the task before starting, or doing a pre-job assessment of the hazards.

Figure 2



Incident rate (IR) over six years.

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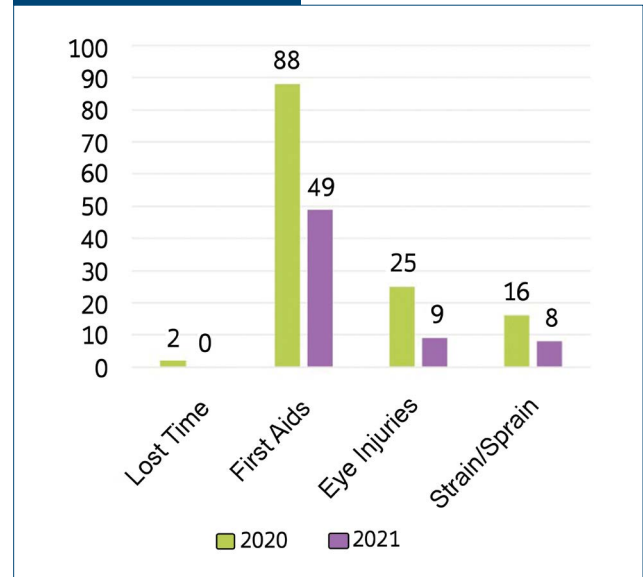
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## Safety First

Figure 3



*Decrease in incidents from 2020 to 2021.*

The challenge was to get the team to use the Take 2 concept on a shift-by-shift/task-by-task basis to proactively identify the hazards so they can be mitigated. By the end of the fiscal year, the reintroduction of the Take 2 program was making a difference and PSIF events had dropped by 42%. The 2021 fiscal year started off with a confident and committed team from the top down to control PSIF events.

A new “suspended load awareness” training was introduced and all employees were required to complete the training by the end of the first quarter. A plan was also devised for this safety training for new hires. Moving forward, all new hires would receive this same training on their second day of employment before they start working in the plant. This extended to all employees, operations, staff, temps and direct hires. Each department was also tasked to perform a suspended load hazard analysis to also be used alongside training of new employees.

The first six months of the fiscal year produced amazing results with a 92% reduction in PSIF events and 100% reduction in suspended load events. This led to the most recent Reality Check in 2021 with the tagline of: “I Choose to Take 2.”

The goal was to continue to grow the company culture by having a relentless focus on each employee taking personal responsibility for their own safety and that of their co-workers. ♦