



Green Cross for Safety® Awards 2021 Finalist | Excellence

United States Steel Corporation

U. S. Steel has been an industry safety leader since the company's earliest days. In 1908, the company coined the expression "Safety First," and today, safety remains a core value. As a founding member of the National Safety Council and Campbell Institute, U.S. Steel remains dedicated to the pursuit of safety excellence. However, in the last decade, safety performance plateaued (Fig. 1). Even though lagging indicators were at historic lows, the company still experienced sporadic serious incidents, including some with life-threatening capability. Corporation leaders recognized that they needed to do better.

They began by exploring enhancements to the existing Hazard Identification and Risk Assessment process. The company needed a more systematic approach to identifying hazardous jobs and assessing and prioritizing risk at a granular level, so they developed "risk registers" within every division at every facility. The goal was to identify and assess risks for 7,500 jobs with the highest hazards by the end of 2020.

Teams of subject matter experts came together and used their knowledge to apply a 5x5 risk matrix to assign an initial risk ranking for each job on their risk register. The team tracked and reported their progress throughout 2020, and by year's end, identified 9,019 jobs that would become the foundation of the new and improved HIRA process - 21% more than initially envisioned.

A dedicated internal team was created to build a custom HIRA module for the safety data management system that captures risk data for front-line employees on a real-time basis. The goal was to give employees an easy-to-use tool to enhance their safety planning. One of the most beneficial functions of the new HIRA database was the ability to link incident data to risk data. This helped the company plan better and empowered an enhanced, proactive approach, allowing for sustainable solutions in the most significant hazards.

The process worked - U. S. Steel achieved record-setting safety performance in 2020. Throughout each plant, all leading and lagging indicator objectives were met or exceeded.

Across the company:

- OSHA recordable rates decreased by 12% compared to 2019, ending the year at 0.85 (Fig. 1);
- significant injury rate fell by 29% compared to 2019 (Figure 2);
- days away from work frequency improved by nearly 50%, finishing the year at 0.07 (Figs 2 & 3).

Going forward, the risk registers will be the foundation for ensuring safety is built into the decision-making process at U. S. Steel. Front-line operations and maintenance teams enthusiastically embraced the tool, which has led to rapid acceptance. Shift managers also report the database saves them time, allows for more effective use of resources, and gives them information far more applicable to their daily safety challenges than ever before.

For U. S. Steel, "Safety First" is more than a tagline. It remains a core value more than a century after the company coined the phrase. U.S. Steel believes leveraging data to find and either reduce or eliminate risk will help ensure that each and every employee returns home safely to their families every day.



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Figure 1

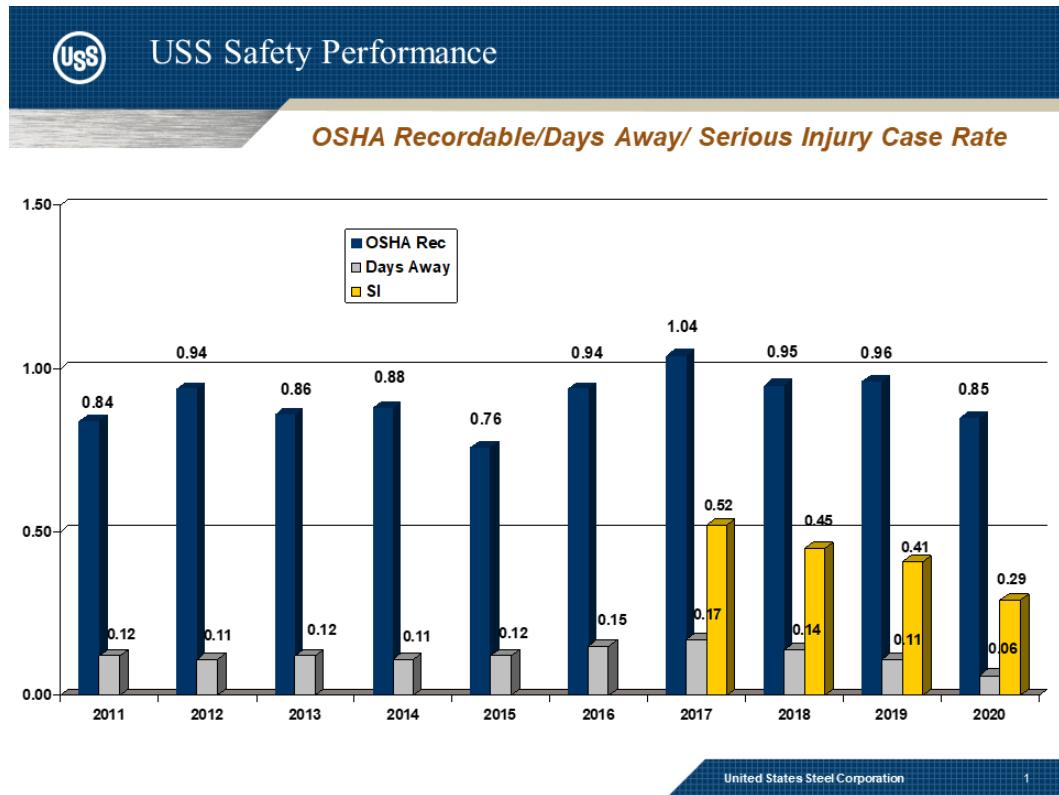


Figure 2





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Figure 3

Benchmarks vs Performance 2020 DAFW



- **BLS** = U.S. Bureau of Labor Statistics
- **AISI** = American Iron and Steel Institute
- **SMA** = Steel Manufacturers Association
- **Alcoa, Allegheny Technologies Inc. (ATI) and Nucor** = Metals industry competitors