

The Importance of Analyzing Near Misses

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

Many may refer to a near miss as a “close call” or a “near hit.” In the U.S. Occupational Safety and Health Administration (OSHA) Fact Sheet titled “Accident/ Incident Investigation,” a near miss incident is described as one in which “no property was damaged and no personal injury was sustained, but where, given a slight shift in time or position, damage and/or injury easily could have occurred.” It also goes on to recommend that, from an investigative perspective, it be treated as an incident that resulted in an injury or property damage. The fact sheet goes on to say that “near miss reporting and investigation allows you to identify and control hazards before they cause a more serious incident.”

The National Safety Council (NSC) develops many useful tools to assist companies in promoting safety and health in the workplace and in the home. In a document titled “Near miss Reporting Systems” the NSC enhances the OSHA description by adding, “Only a fortunate break in the chain of events prevented an injury, fatality or damage.

“History has shown repeatedly that most loss-producing events (incidents), both serious and catastrophic, were preceded by warnings or near miss incidents. Recognizing and reporting near miss incidents can significantly improve worker safety and enhance an organization’s safety culture.”³

Most are familiar with the safety triangle introduced by H.W. Heinrich in the 1931 book, *Industrial Accident Prevention*, where

he states the accident ratio of one major injury for every 29 minor injuries and every 300 no-injury accidents. In 1969, Frank Bird conducted additional research on the subject and proposed an expanded safety triangle. He concluded that for every 600 incidents, there were 30 accidents, 10 serious accidents and one fatality.

You may have heard the term “leading indicator.” A leading indicator is a measure preceding or indicating a future event that is used to drive and measure activities carried out to prevent and control injury.⁴ It is believed the investigation of near miss incidents could be considered an example of a leading indicator. Focusing on leading indicators in accident prevention is considered being proactive and not reactive. Indeed, investigating a near miss is reactionary to some extent, in that a near miss event has already occurred, but since most of these types of cases go unreported and are brushed off as “that was close,” a case could be made that analyzing near miss incidents is part of a proactive safety program.

In order to be successful in developing a near miss incident reporting program, employees should be included in the process, as their involvement is critical. The company culture should encourage the reporting of these types of incidents.

In an article written by Keith Howard in *Safety & Health Magazine*,¹ he lists eight steps that should be considered when setting up a near miss reporting program, as follows:

- Create a clear definition of a near miss.
- Make a written disclosure and report the identified near miss.
- Prioritize reports and classify information for future actions.
- Distribute information to those involved.
- Analyze the causes of the problem.
- Identify solutions to the problem.
- Disseminate the solutions to the people impacted.
- Resolve all actions and check any changes.

No one wants to see an employee injured on the job. Investigating near miss incidents and taking timely corrective action help to prevent an injury or significant property damage from happening, resulting in a safer, happier and more productive workforce.

References

1. Howard, K., "Everybody Gets to Go Home in One Piece: How Reporting Close Calls Can Prevent Future Incidents," *Safety & Health Magazine*, 2012.
2. U.S. Department of Labor, Occupational Health and Safety Administration, Accident/incident Investigation Fact Sheet www.osha.gov/SLTC/etools/safetyhealth/mod4_factsheets_accinvest.html.
3. National Safety Council, Near miss Reporting Systems Case Study, May 2013, [www.nsc.org/news_resources/Resources/Documents/Near miss-Reporting-Systems.pdf](http://www.nsc.org/news_resources/Resources/Documents/Near%20miss-Reporting-Systems.pdf).
4. Middlesworth, M., "A Short Guide to Leading and Lagging Indicators of Safety Performance," <http://ergo-plus.com/leading-lagging-indicators-safety-performance>.

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