Public policy paper

Safety and health in the steel industry

Nothing is more important than the safety and health of people who work in the steel industry.

worldsteel ASSOCIATION

Ternium

worldsteel safety and health commitment and principles

Our commitment:

Nothing is more important than the safety and health of people who work in the steel industry.

This commitment, strongly endorsed by the worldsteel Board of Members, is accompanied by a set of six principles (see page 3, Key points from this report).

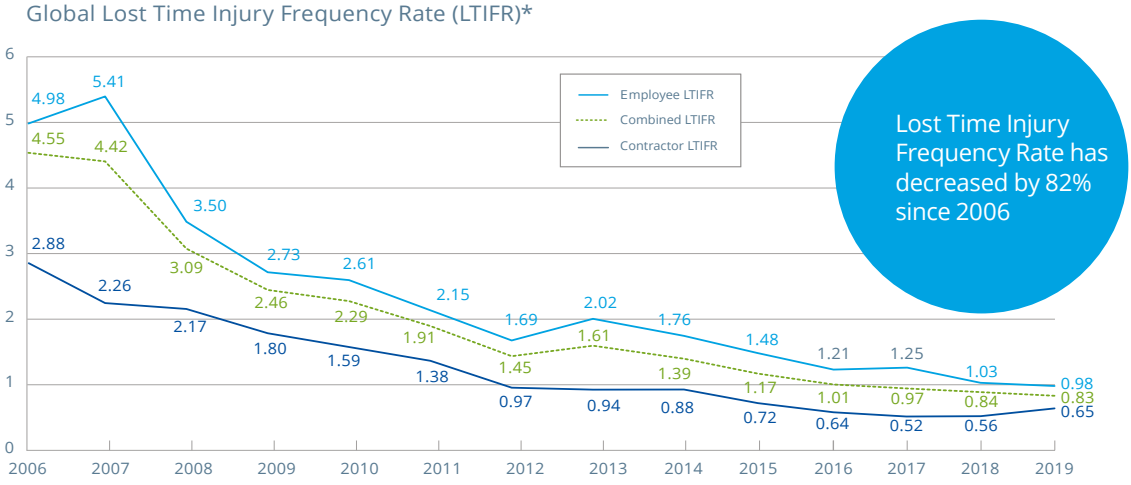
Protecting the safety and health of everyone who works in or around the steel industry is of vital importance to all our members. The duty of care and social responsibility demands that everyone is able to work in a safe and healthy work environment.

worldsteel provides up-to-date guidance, data, processes and procedures freely available to members to help the steel industry deliver on its key mission to eliminate accidents and manage working environments with the highest standards of safety and health conditions.

Safety data collected from our membership show that the steel industry has seen a steady and notable reduction in the Lost Time Injury Frequency Rate (LTIFR) over the past decade. The injury rate per million hours worked has decreased from 4.55 in 2006 to 0.83 in 2019, a reduction of 82%.

Although our Lost Time Injury Frequency Rate statistics are promising, an integrated focus, including leading and lagging indicators, is required to gain a greater insight into the safety and health performance of the industry.

Global Lost Time Injury Frequency Rate (LTIFR)*



Lost Time Injury Frequency Rate has decreased by 82% since 2006

** A Lost Time Injury (LTI) is an incident that causes an injury that prevents a person from returning to their next scheduled shift or work period. Lost Time Injury Frequency Rate (LTIFR) is the number of Lost Time Injuries per million man-hours. LTIFR includes fatalities.*

The steel industry is committed to achieving the goal of zero harm - an injury-free and healthy workplace for employees and contractors.

Key points from this report

worldsteel's six safety and health principles:

All injuries and work-related illness can and must be prevented.

Managers are responsible and accountable for safety and health performance.

Excellence in safety and health drives excellent business results.

Employee engagement and training is essential.

Working safely is a condition of employment.

Safety and health must be integrated into all business management processes.

Four key focus areas:

Safety culture and leadership

Occupational safety management

Occupational health management

Process safety management

Four key focus areas

Four key areas must be considered to manage safety and health comprehensively:

1. Safety culture and leadership

A sound organisational culture has safety embedded. Attitudes and behaviours that support the goal of zero harm typically contribute to safer operations and better overall company results.

Attitudes and behaviours that support the goal of zero harm typically contribute to safer operations and better overall company results.

These are deeply reflected in the actions of employees and contractors. Newcomers embrace and internalise these values in order to remain and grow in the organisation.

Effective leadership is critical to achieving and sustaining a positive safety culture.

A strong and visible commitment from the very top of the company shared by all levels of management is essential to achieve a healthy accident-free workplace.

Steel companies that have the best safety records are those whose chief executives are held accountable by the board of directors for the safety and health of all people working on their sites, employees and contractors alike. These are companies where all levels of management are actively involved and support a safe and healthy approach to work on the shop floor.

2. Occupational safety management

Occupational safety management promotes the safety of employees, contractors and visitors by preventing personal injuries in the workplace, and has a strong focus on primary prevention of exposure to hazards.

3. Occupational health management

In its widest definition, occupational health management encompasses the physical, mental and social well-being of the people working in the company. The focus is placed on long-term effects on exposure to hazards. The health of workers has several determinants, including risk factors at the workplace leading to cancers, musculoskeletal diseases, respiratory diseases, hearing loss, circulatory diseases, stress related disorders and others.

4. Process safety management

Process safety is a blend of engineering, operations and management skills focused on preventing catastrophic accidents, particularly structural collapse, explosions, fires and toxic releases associated with loss of containment of energy or dangerous substances such as toxic gases, molten metal, chemicals and petroleum products.

The manufacturing of steel involves processes with intrinsic hazards that need careful management. The measures needed to control these hazards are often complex. The focus of process safety management is not limited to protecting the people within the company but also includes the environment, assets and surrounding community.

International standards for safety and health in the workplace

Most countries have their own legislation on occupational health and safety which must always be respected. Many steelmakers also follow international standards on occupational health and safety management.

The most commonly used international standard on occupational health and safety management systems are OHSAS 18001 and ISO 45001.

Compliance with these standards demonstrates a company's commitment to continually check and improve its health and safety performance. An occupational health and safety management system is often combined with similar management systems such as Environment Management System (ISO 14001) and Quality Management System (ISO 9001).

As a rule, steelmakers should choose to adopt the highest standards and systems available and they should exceed the minimum legal requirements.

worldsteel safety and health programme

worldsteel's policy is to help its members achieve an accident-free workplace. worldsteel's safety and health committee provides expert guidance to achieve this goal through a series of activities.

Safety and health metrics survey

Measuring performance is one aspect of achieving good safety and health standards. worldsteel encourages all of its member companies to participate in the safety performance data collection and report as accurate information as possible.

This information not only concerns the number of incidents that occur (number of fatalities, lost time injuries, medical treatment incidents, first aid incidents, near misses or safety deviations) but also all the actions taken to avoid further similar incidents.

The metrics allow organisations to identify areas that need improvement and benefit from the strong support of their peers in the industry to share their knowledge.

Safety and health guidance notes

There are a number of safety and health best practice examples and guidance notes on specific topics available from worldsteel's membership-only platform. Provided by industry safety managers and based on actual working practice these can be utilised in any plant or company to prevent serious safety incidents.

Safety and health excellence recognition

A good practice or a good idea that works well in one plant can also be a success in another plant and prevent injuries and save lives. worldsteel's Safety and Health Committee recognises each year member companies that are actively working to improve safety and health within the steel industry. Since 2008, more than 50 examples of best practice have been recognised and made available to the whole industry. An additional 200 submissions are available online for members to consult and reuse within their own premises.

Safety workshops

Safety workshops allow people to meet face to face to discuss and exchange best practices. worldsteel provides specific safety workshops around the world.

Serious safety occurrences sharing

If an incident occurs, there is an enormous amount of knowledge to be gained from reviewing the causes and actions taken to prevent a re-occurrence.

worldsteel promotes the sharing of safety serious occurrences between its members in order to avoid a repeat of similar incidents worldwide. worldsteel members can share safety serious occurrences online and exchange questions and answers on a safety forum.

Shop floor safety audits

worldsteel performs shop floor safety audits or safety observation activities upon request. This allows members to develop their own observation and audit programmes.

Steel Safety Day

Steel Safety Day is aligned with the International Labour Organisation's (ILO) World Day for Safety and Health at Work. Ahead of the day, scheduled every year on 28 April, worldsteel asks all its members to carry out a special safety audit on the five most common causes of serious safety incidents. These are – moving machinery, falling from heights, falling objects, process safety incidents, and on-site traffic.

Steel Safety Day

Established in 2014, Steel Safety Day was set up to reinforce awareness of the top five causes of serious incidents and to create a safer working environment across the entire global steel industry.

By focusing on the five causes - moving machinery, falling from heights, falling objects, on-site traffic, and process safety incidents - worldsteel intends to set up a continuous improvement process.

Steel Safety Day takes place on 28 April every year and is aligned with the International Labour Organisation's World Day for Safety and Health at Work. Ahead of the safety day, worldsteel encourages all of its members to carry out safety audits involving all of their employees and contractors.

Each year one of the five causes is highlighted and given more focus to raise awareness of the cause and how to prevent associated risks.

The most common causes of serious safety incidents and preventative measures have been identified as follows:

Moving machinery – Isolate, lock or pin all energy sources before any machinery is accessed.

Falling from height – Provide regular training, appropriate harnessing equipment and ensure checks are in place when working at height.

Falling objects – Ensure regular checks are in place to remove or secure objects in risk areas.

On-site traffic – Ensure all traffic on the site is operated safely, including road, rail and pedestrians, and remove all unnecessary traffic.

Process safety incidents – Identify potential process safety hazards that could cause explosions or fires and introduce and maintain adequate barriers and controls.

steelSafetyDay

2019

APRIL 28

463,504 employees and contractors from 50 companies actively took part in the audit.

975,640 employees and contractors working on those sites were directly or indirectly involved in the audit.

Outcome

The Steel Safety Day audits have had a major positive effect in identifying the hazards in the workplace. Participating worldsteel members have developed and implemented mitigation plans for 100% of the hazards identified to ensure serious injuries no longer occur.

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