

## SAFETY AND HEALTH RECOGNITION PROGRAMME 2015



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worldsteel represents approximately 170 steel producers (including 9 of the world's 10 largest steel companies), national and regional steel industry associations, and steel research institutes. worldsteel members represent around 85% of world steel production. worldsteel acts as the focal point for the steel industry, providing global leadership on all major strategic issues affecting the industry, particularly focusing on economic, environmental and social sustainability.

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## Leadership is essential to a safe and healthy environment

The goal of an injury-free, illness-free and healthy work place remains the highest priority for our industry. This is important even in difficult economic times, when it may be tempting to reduce safety resources.

Every year, since 2008, the World Steel Association (worldsteel) has recognised member companies that show a continued commitment to leadership in safety by demanding uncompromising safety standards. By utilising the six worldsteel safety and health principles, they can improve their health and safety programmes and affect change.

This year, 31 submissions were received in the Safety and Health Excellence Recognition programme. Six submissions were selected for recognition across the three categories of Health, Safety systems and Safety projects. The companies recognised for their excellence are: Arrium, Essar Steel, Gerdau, Hadeed, NatSteel (part of Tata Steel), and Tenaris.

What was once again apparent from the submissions is that leadership of the CEO or Chairman of an organisation is a key element of any successful safety and health initiative. worldsteel cannot emphasise enough how important personal leadership is in building a sound, safe and healthy environment.

The six recognised organisations can be very proud of the improvements that they have made. worldsteel encourages other companies to use these excellent safety and health programmes and to submit their own innovative programme next year.



**Henk Reimink**  
Director  
Safety, Technology and Environment  
World Steel Association

## WORLDSTEEL SAFETY AND HEALTH PRINCIPLES

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

- worldsteel Board of Directors

- ✓ All injuries and work-related illness can and must be prevented.
- ✓ Managers are responsible and accountable for safety and health performance.
- ✓ Employee engagement and training is essential.
- ✓ Working safely is a condition of employment.
- ✓ Excellence in safety and health drives excellent business results.
- ✓ Safety and health must be integrated into all business management processes.

# ARRIUM - SOUTH AUSTRALIA

## Swear By Safety

The 'Swear By Safety' campaign is a comprehensive cultural change process supported through multimedia to shift belief around achieving Goal Zero (Arrium's safety vision) and injury prevention behaviours at Arrium's combined iron ore mining and integrated steelworks business and the broader community in Whyalla, South Australia.


The campaign was conceived following a near miss involving a front-end loader and a light vehicle, where the occupant of the light vehicle ignored a procedure and was almost killed. It was this event that prompted this initiative to shift personal beliefs about safety.

### Why Swear By Safety?

While safety remains at the core of Arrium's business processes, it also needs to be ever present in the actions and, most importantly, the hearts and minds of its employees. Through over a year of research, Arrium discovered that if the safety value is taken seriously at home, it will carry through to all other aspects of a person's life – at work, on the road and in the wider community.



Swear By Safety campaign

 Follow Swear By Safety on Facebook

### How did Arrium achieve this?

The most valuable piece of work Arrium did around Swear By Safety was listen to over 100 employees, contractors and community members over 3 days and then build on what they had to say as the basis of the message that was needed. They heard about the pain and suffering that had happened in the industry and workplace over decades when safety wasn't as much of a highly held value.

They then embarked on a rigorous process of creating material that was unique to Whyalla – made for Whyalla People, by Whyalla people. No models or actors were used to make it an authentic message. The campaign then commenced with this material streaming online, on TV, radio and print advertisements throughout the Whyalla community and within their business. This was part of the 'outside-in' approach, utilising social media, and was highly influential in helping to spread the message beyond the walls of the workplace and ultimately, beyond Whyalla.

Another key feature of the initiative is that it was 'open source', with all companies, organisations and community members welcome to use the material and join the movement free of charge; dramatic yellow and black symbolism was used visually to draw attention to the campaign, employee safety leadership summits were held to allow reflection on people's own safety journey and lastly the Swear by Safety oath represented an opportunity for all individuals to make their personal choice public and to be bolstered by the support of their peers. So far 800 people within the workplace and community have taken that oath, including the local mayor.



Swear By Safety oath

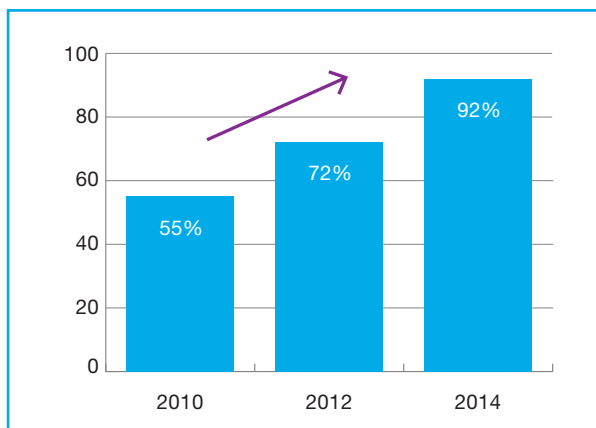
Essar Steel believes in Building a Sustainable Safety Culture through 'Process Safety Management' (PSM). The project started in December 2010 when a baseline external audit by a third party was set. In September 2012, November 2014 and February 2015 further audits were carried out. The safety results have improved with every audit.

The Process Safety Management Journey incorporates a number of different initiatives and aims at involving all employees and contractors in a meaningful way on a daily basis. Below is a list of the initiatives:

- An online PSM Portal has been made accessible to all members of the organisation. This portal incorporates:
  - Standard operating procedures
  - Leading and lagging indicators
  - PSM resources
  - PSM library as per model of the Centre for Chemical Process Safety (CCPS).
- A robust online MOC (Management of Change) system was developed which keeps track of any change in plant processes or systems.
- PSM Campaigns were carried out to engage all levels of employees and contractors.
- Screening of PSM Video Films to provide an in-depth study of each PSM element.
- On the occasion of worldsteel's Steel Safety Day Campaign, a 'Safety Rally - World's Biggest Industrial Safety Show' was organised, in which 3,589 employees marched for 3 hours displaying safety banners and chanting safety slogans. A Safety Oath Taking Ceremony also took place which was attended by all Senior Executives.



Third-party audit results, 2010-2014



PSM culture upward trend based on third-party audit results

An essential component of a successful behavioural safety programme is to drive the leader towards 'felt leadership'. Leaders should demonstrate their commitment through managing safety on a daily basis while at the same time successfully carrying out their activities.

Gerdau has developed a practice that focuses on the effectiveness of leaders in their safety routine activities. The practice involves leaders being frequently monitored and evaluated on the execution and control of their safety activities. Monthly quantitative evaluations are consolidated by the safety team and qualitative assessments are conducted on a quarterly basis by a supervisor/manager.

The results are analysed by the supervisor/manager and, an individual coaching session is then organised, during which good performance is encouraged and an individual improvement action plan is established for those who performed poorly.

The Leader Proactive Index (LPI) practice has the following objectives:

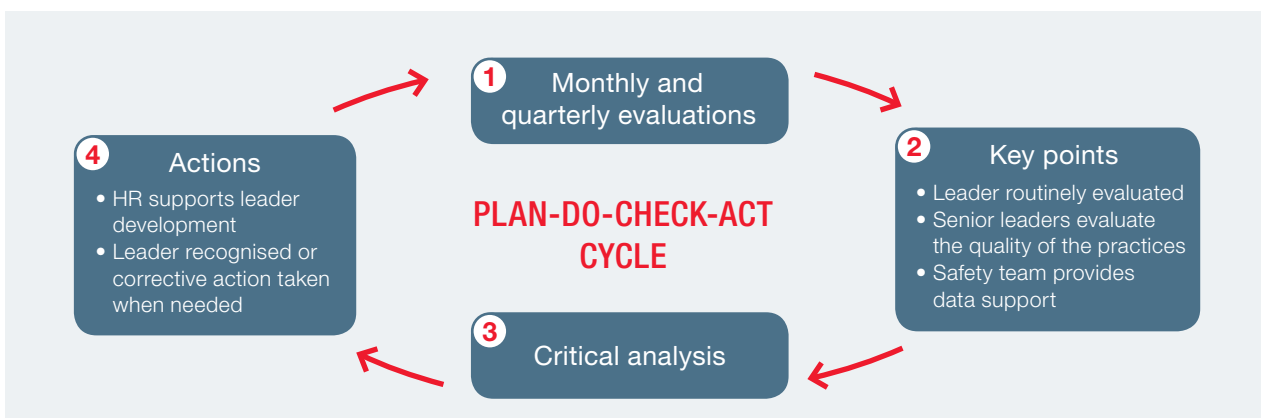
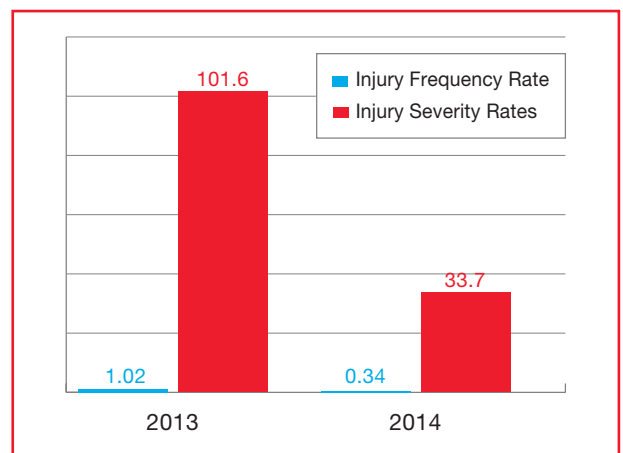
- Assess the leader's performance on routine safety responsibilities
- Provide leaders with adequate feedback to improve their safety leadership
- Recognise leaders with outstanding safety performance
- Support a coaching process to develop low performing leaders through an individual plan.

The benefits of the LPI approach can be observed not only in the metrics (quantitative benefits) but are also clear in the overall leaders' accountability for safety.

The qualitative benefits have been identified as follows:

- Increased engagement and commitment towards routine activities
- Further commitment to be recognised as the 'Leader of the Month'
- Some leaders are becoming coaches to develop other leaders
- Increased team engagement and better safety results in their areas.

Quantitative benefits have also been identified. For example, a notable improvement in Injury Frequency Rate and Severity Rate has been recorded from 2013 to 2014 for both employees and contractors.



At Saudi Iron & Steel Company (HADEED), Near Miss Reports are considered one of the most significant and prominent Environment Health Safety and Security (EHSS) indicators because they provide a clear picture of any given site's EHSS performance.

The most effective strategy for avoiding safety incidents is to adopt a proactive and initiative-led approach. Hence, HADEED has devoted a considerable amount of effort, time and money to building its new online EHSS reporting system. The name given to the system is AYN, which in Arabic refers to a 'person's eye'.

The idea behind the project was to make the process of producing Near Miss Reports accessible to all. The priority therefore was to create an extremely user-friendly interface with which plant workers, site managers and contractors could report Near Miss incidents. One of the most significant upgraded features of the system was investigation and action tracking.

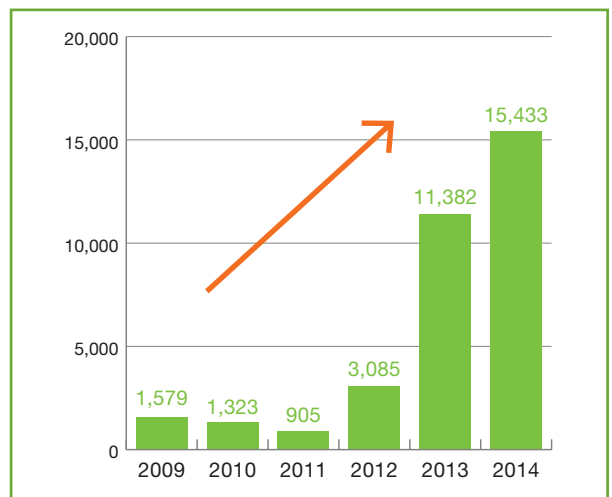
At Saudi Iron & Steel Company (HADEED), an overall Near Miss Analysis is performed every month and every Near Miss is subject to a detailed analysis by the company's safety department. The analysis is then communicated to all employees in the form of Safety Alerts.

The key selection criteria for Near Miss Alerts reporting are:

- significance of the consequences
- influence of previous incidents
- and/or number of recurrences.

As part of this analysis, a selection of reports is awarded the title of 'Best Near Miss Winners'. The winners can be either company employees or contractors. In addition, HADEED's President hands out a certificate and gift to the winners.

Two main outcomes have resulted from this new reporting system. First, it highlighted areas of concern that required attention and, secondly, it encouraged all employees to adopt a culture of EHSS reporting, with the ultimate goal of sustaining the endless journey of HADEED towards safety and health excellence.



Number of Near Miss reported, 2009-2014



Best Near Miss Winners receive certificate and gift from HADEED President

A Near Miss is an incident which did not lead to any serious personal injury to the employee, contractor or visitor but which could have done. It needs to be followed up in the same way as a Lost Time Injury but it is recorded as a Near Miss. For example, an operator finds a heavy bolt on the floor next to his operating station which is likely to have come from an overhead crane or roof structure.

Source: Safety and Health Guidance Booklet, worldsteel

In 2008, NatSteel Holdings, a wholly-owned subsidiary of Tata Steel, embarked on a focused safety excellence journey with the help of a safety consulting company. The aim was to cultivate a safety and health culture in the workplace. Safety and health programmes were established and line managers took up the ownership to ensure that the programmes were implemented effectively in their work areas.

As part of the continuous improvement process, NatSteel implemented a holistic Safety, Health and Well-being programme in 2014 to further integrate its safety, health and well-being activities. This programme was carried out in cooperation with the Singapore Government's safety and health related agencies. The 'Total Workplace Safety and Health' (TWSH) approach recognises that the work environment and the overall health, safety and well-being of employees are inter-related.

Diminished health and injury, whether caused by work or not, reduces work output as well as the quality of life. Conversely, enhancing the safety, health and well-being of employees reduces risk of ill health and injury, leading to a more vibrant and productive workforce. This integrated approach views a safe and healthy workplace as one that has workers and managers collaborating in a continual improvement process to protect and

promote the health, safety and well-being of all workers and the sustainability of the workplace.

NatSteel's health and wellness programmes encourage healthy lifestyle in the workplace. Below are examples of three such programmes:

- **Occupational Hygiene programme:** Driven by the Total Workplace Safety and Health (TWSH) team, to evaluate the occupational hygiene in the workplace, and the Occupational Health Unit (OHU), to create awareness on occupational related illness.
- **Wellness Programme:** A joint effort by Sports Recreation Club (SRC) and OHU to promote healthy lifestyles.
- **Health Programme:** The programme facilitates Health Talks/Workshops and drives preventive initiatives to create awareness on health issues.

Since the implementation of the programmes, positive change has been observed. One example is the reduction of chronic diseases. Workers, middle management and senior management are now more engaged and motivated as they now have a better understanding and appreciation of the rationale of TWSH. Overall, NatSteel's employees have become more health conscious, which has resulted in a continuous improvement observed in their health.





Despite the many safety training sessions and initiatives implemented by Tenaris, the number of incidents occurring during repetitive tasks remained at an unacceptable level. The main problems with the procedures and risk analysis in place were that they related to documents that were not perceived as user-friendly or helpful, leading to difficulties understanding assessed risk with determined countermeasures.

The solution was the launch in 2010 of a project to define best practices for Safety Work Instructions focusing on development, availability, training, adherence control and updating.

In the process of establishing new procedures, it was considered essential to involve workers in order to take advantage of their experience in detecting risks and defining countermeasures. The aim was to standardise behaviours among different teams and show management leadership through direct involvement in the approval and control process.

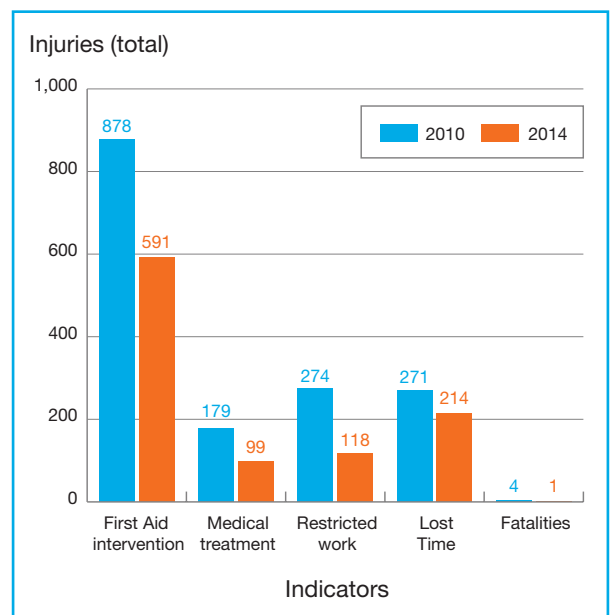
The company developed 4,000 Safety Work Instructions, available to all those working in operative areas. These instructions are continuously updated. In 2014, around 8,000 inspections were performed.

The updated Safety Work Instructions support worldsteel's Safety and Health Principles in that:

- They involved managers during the document generation process through their direct participation in the approval and control process.
- They established the best working sequence for each process while ensuring the safety of the operator, the quality of the products and process efficiency.
- They required the involvement and training of 16,000 employees, accounting for 75% of the company's payroll.
- They engaged each worker to consider safety risks and countermeasures when performing a task. Anything preventing this should be seen as a problem and an improvement opportunity.
- There is a continuous monitoring of the Safety Key Performance Indicators and the project could be applied to other companies using guidelines to prepare excellent Safety Work Instructions.



The project, launched in 2010, has had a positive impact on the safety and health metrics. At the end of 2014, the number of injuries was reduced by 36%.



When Tenaris started the activity, members of staff generally perceived safety as a body of rules provided from above. As a consequence, Tenaris was positioned at stage 2 of the DuPont Bradley curve, the Dependent Stage. The project has improved the workers' safety behaviour during the activities performed on a daily basis, placing the organisation between steps 3 and 4 of the curve.



## steelSafetyDay

Established in 2014, Steel Safety Day was set up to reinforce awareness of the five most common causes of safety 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, gas & asphyxiation, and moving cranes - worldsteel intends to set up a continuous improvement process and reiterate its commitment to the safety and health of the people who work in the industry.

An extensive membership audit took place in advance of the 2015 Steel Safety Day on 28 April 2015.



### IN 2015...



**327 sites** representing close to **900,000** employees and contractors were **made aware** of the Steel Safety Day.



More than **525,000** employees and contractors representing **49 member companies** actively took part 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 are now developing mitigation plans for 100% of the hazards identified to ensure serious injuries no longer occur.

*worldsteel member participation in 2015 Steel Safety Day*

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

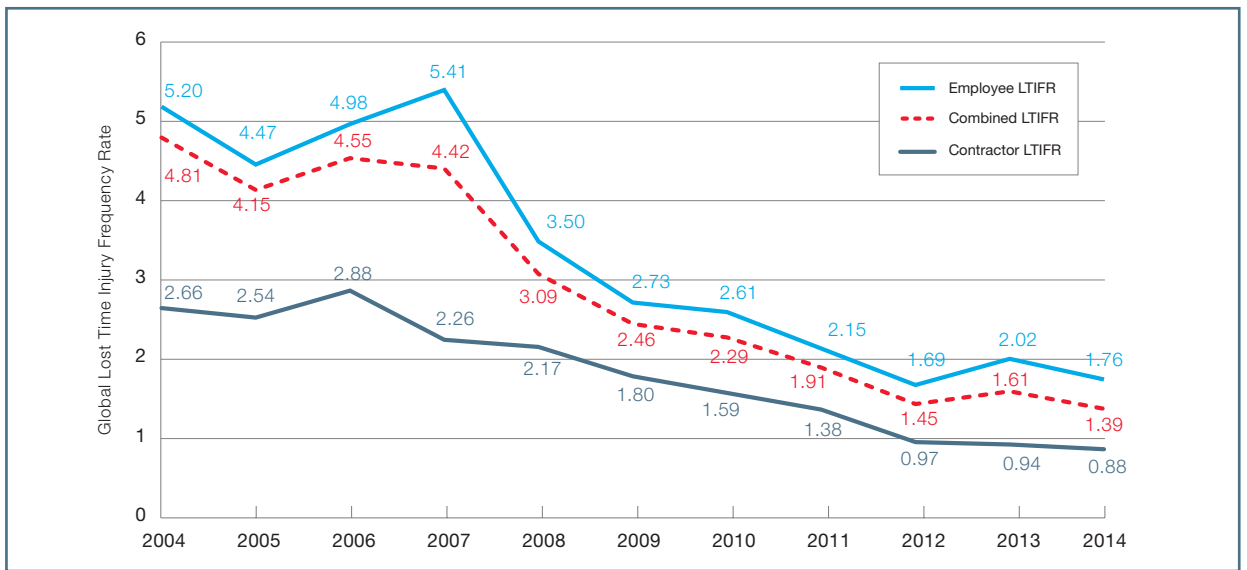
The 2015 Steel Safety Day focused on the risks associated with **Moving Machinery**.

The aim was to ensure that all employees are made aware that:


**Before any machinery is cleaned, serviced or adjusted, all sources of energy, including gravity, must be isolated, locked, or pinned to prevent movement.**



## Global Lost Time Injury Frequency Rate (LTIFR)\*



\*A Lost Time Injury (LTI) is an incident that causes an injury that prevents the person from returning to his 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.



Lost Time Injury Frequency Rate\* in the steel industry decreased from 4.81 in 2004 to 1.39 in 2014, representing a 71% reduction.

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