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A Safety Culture Beyond Employee Protection - A Proven System for Effective Contractor Safety

TATA STEEL LIMITED CASE STUDY



"A company's concern for an employee's safety and health must extend well beyond the plant gate. Safety excellence requires a mindset that cannot be turned on and off when people come to work or leave. It's a 24 x 7 job to improve on-and off-the job safety."

MR HM NERURKAR, MANAGING DIRECTOR, TATA STEEL LIMITED

Challenge

Construction industry jobs have traditionally been considered hazardous ones, due to the high incidence of occupational injuries and, above all, fatalities. The International Labor Organization estimates that at least 60,000 fatalities occur at construction sites annually around the world. This means that one fatal construction-related accident occurs approximately every ten minutes, which also means that around 17% of all work fatalities (one in every six) are in this industry.*

Every day, Tata Steel manages more than 15,000 contractors at the company's Jamshedpur site. With such a large contractor workforce often operating under their own safety rules, Tata Steel has had a significant and constant challenge maintaining the highest safety standards among its contractors. Despite their unrelenting efforts, Tata Steel has seen contractor injury rates continue to rise; this clearly was not acceptable to a company that prides itself on providing a safe workplace.

As a growth-oriented organization and one of the world's pioneering steel companies, Tata Steel believes that nothing is more important than making sure that every day, their employees return home safely to their families. All employees and the contractors must fully embrace safety initiatives if Tata Steel is to achieve the results they believe are critical to creating and maintaining a productive work environment.

The Tata Steel contractor safety transformation journey started in 2005. Prior to that and common in many organizations, safety was the sole responsibility of



Case Study.
TATA Steel.
India.
Mining and Metals.

the safety department. It was also the time when the company was experiencing double digit fatality numbers annually. The safety challenge was further compounded by the huge number of contract workers at Tata Steel's 80 project sites and during massive redevelopment or brownfield expansion. Line managers were not directly responsible for safety and often not equipped to enforce compliance with safety rules and regulations. While there were standard operating procedures for Tata Steel employees, there was no systematic approach to managing contractors. Other challenges included a high turnover and low literacy rate of contract workers; an "it's ok" attitude; a resistance to change; and different standards applied on

* Opening speech by Ms Constance Thomas, Director, ILO Office for China and Mongolia at the National Seminar on Construction Safety, 28 April 2005.

Tata Steel project sites versus those required by the industry. Tata Steel was not being adequately informed of the total number of safety incidents occurring at its contractor managed project sites, but believed that too many safety incidents were occurring and something significant needed to be done.

The proliferation of contract workers across the project sites begged two critical questions:

- (1) How did Tata Steel ensure that contract firms/workers were safely conducting their business on the project sites? and
- (2) How did working safely have a positive impact on business objectives for both Tata Steel and its contractor(s)?

Leading the way in safety

Using other global industry leaders' safety challenges and solutions as a benchmark, Tata Steel selected dss+ to help instill a culture change and a safety mindset. Their decision was based on dss+ owner/operator experience, its reputation for being one of the safest companies in the world, its shared belief in the philosophy that "all injuries are preventable" and dss+ proven model to achieve

worldclass performance through behavioural change and reduction in injuries. Tata Steel personnel and contractors worked alongside dss+ to create and implement a solution in a joint effort that maximized each of their strengths.

"No injuries. No fatalities. Period. A lofty goal? Yes. But achievable and necessary," said Mr HM Nerurkar, Managing Director, Tata Steel Limited. He also said that any safety effort – including those based on behaviour-based safety approaches – is doomed to failure unless management leads and supports the effort. "Managers must place a high priority on safety and be willing to live according to safety principles, too. They must understand that safety, not business, is management's top priority, so they'll make safety their business and will structure their own initiatives," said Mr Nerurkar. "So, for Tata Steel to succeed, and for the contractors to also succeed, all managers – regardless of their levels - must demonstrate a visible commitment to safety in everything they do."

In the process, Tata Steel discovered that there was no shortcut to achieving safety excellence. "Talking won't make us world-class. Only actions will make us world-class," said Mr OB Krishna, Chief, Safety and Ergonomics, Tata Steel Limited. "People want a safe work environment so they were ready to change. They just needed the suggestions and tools to make change."



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TATA Steel.
India.
Mining and Metals.

Transferring six-step process from dss+

Establishing a coordinated safety program between Tata Steel and its contractors was extremely challenging since each contractor group tends to have its own safety management process. And, in addition, there was a need to balance traditions and customs that have been the norm of business operations over the years.

The first step Tata Steel undertook was the implementation of the dss+ six-step contractor safety management system. These processes helped developed a clear and well-defined roadmap for Tata Steel's contractor safety improvement journey right from the start. "This is beyond just processes. dss+ has shown us how to hire safe contractors and subcontractors and then influence and enforce safe behaviour at the project sites," said Mr Krishna. "As a result, we raised the bar on safety standards expected of contractors and subcontractors in the industry."

The focus on training and competency building in the six step process raised another benchmark in the industry. The Safety Contractor Employee Training Center, first established to address the low literacy rate and the limited skills set of contract workers, has become a place that produces skilled contract workers not only for the company itself, but for the industry through labour movements. Moreover, there is a cascading effect that continues to ensure maintenance of safety standards among contract workforce, both within and outside the company.

Involving the total organization

Another priority for Tata Steel was for dss+ to identify key safety improvement issues and barriers, and discuss pitfalls faced by companies in pursuit of greater safety performance.

And this process had to bring in senior leadership to gain their understanding and ultimately, their unreserved endorsement.



The management of Tata Steel was introduced by dss+ to its proven process in contractor safety management, providing a framework for Tata Steel to create a competitive advantage for both the company itself and for its contractors.

Once exposed to the dss+ culture of safety propagated throughout its plants, labs and offices around the world, Tata Steel quickly understood the benefits of having both employees and contractors from different disciplines come together under the safety banner.

Recognizing the need to "walk the talk", Tata Steel's executive management organization sought buy-in from every employee and contractor, including union representatives.

"For any vision to be realized, we knew a robust process and action plan was required. Using dss+ techniques to drive the plan, we began to effect changes in behaviour and mindset. Consistency and passion were two by-words for success. We also stressed fair and equal treatment of employees and contractors. We involved them in the problems and process, then asked for their feedback to create a solution that would incentivize them to improve," said Mr RP Singh, Advisor to the Managing Director (formerly Vice President, Engineering Projects), Tata Steel Limited.

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TATA Steel.
India.
Mining and Metals.

A three-pronged plan was put into effect to transform the "basic DNA" of Tata Steel's safety performance, especially among the contract workforce.

Phase 1: Containment

The immediate priority was to contain the injuries and fatalities. This was achieved through focused deployment of resources for quick results, including:

- Auditing of project, identifying and correcting safety violations
- Introducing safety briefings prior to work commencement as a standard procedure
- Sharing of job hazards and preventive measures
- Implementing compulsory training and induction
- Involving contractors in safety management
- Conducting mass meetings with a large number of contract workers to assure consistency of message and agreement for compliance
- Setting standards for use of Personal Protective Equipment (PPE)
- Launching Fatality Risk Control Program (FRCP) to eliminate potential problems through focused observations carried out by specially trained personnel

While processes and standards provided the tools to improve workplace safety, the key to the transformational success still lies in influencing behaviour and changing mindsets. It was imperative to engage the Tata Workers' Union right from the start, sharing with them the benefits of the program. "Once on board, the unions became our partners. They provided valuable insight and suggestions and played an instrumental role in convincing our employees and contract workers to change," said Mr Hridayeshwar Jha, Vice President, Safety and Long Products, Tata Steel Limited.

"At the beginning of this process, contract workers took safety improvement lightly. We had to use the 'forcing compliance' technique initially. We gradually applied the counselling style and before long, people were self-reporting on safety violations," said Mr Jha.

"For any vision to be realized, a robust process and action plan is required. We used the dss+ techniques to drive the plan. To change behaviour and mindset, it requires consistency and passion, we also stressed on treating employees and contractors equally; involving them in the process; hearing their feedback and giving them opportunity to improve."

**MR RP SINGH, ADVISOR TO THE MANAGING DIRECTOR,
TATA STEEL LIMITED**

Employees reacted favourably. "We appreciated being involved every step of the way. We liked the counselling approach to help us understand where mistakes were made and more importantly, how to prevent an incident from happening again," explained a site worker.

Everyone had a role to play. The Tata Steel management provided leadership and support. Employees and contract workers were encouraged to drive the safety effort. As a result of the open communication, contractor involvement and sharing, incident reporting increased, corrective actions were implemented in a timely manner and safety learnings were captured.

The benefits? Suggestions and direct feedback from contract workers helped improve safety processes and reduce costs.



Phase 2: Establishing systems and processes

To reduce contractor injuries and keep contract workers safe is to first manage the system. When in place and embraced by contract workers, these systems change the safety culture so that lasting change can take root. Some of the key steps taken to make safety culture a way of life at Tata Steel included:

- Driving effective contractor safety through "Contractor Safety Committees"
- Establishing plant/ location/ job-specific training processes
- Initiating Contractor Field Safety Audits
- Having same safety metrics for contractors and Tata Steel employees
- Making contractors responsible for safety of their people, although final accountability remained with Tata Steel line management

By focusing on safety awareness and training through daily meetings, Tata Steel was able to have contract workers take the lead in identifying and pointing out potential hazards. "Our philosophy is work for safety, for

self and for others. Preventive measures versus policy making is a much stronger approach to safety," said Varun Jha, Vice President, Engineering and Chhattisgarh Project, Tata Steel Limited.

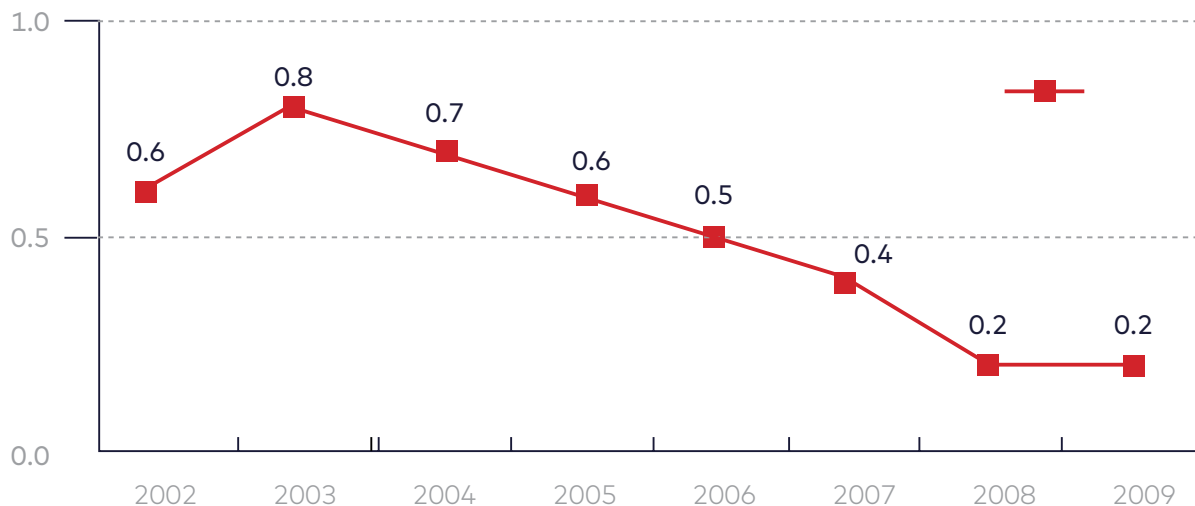
While processes and standards continued to be put in place and corrective actions taken, Tata Steel continued to experience resistance to change in the organization. Some leadership team members were expecting to see quick results and were frustrated over continued injuries and the perceived lack of improvement, despite time and efforts invested. Some contract workers and employee were still stuck in the "it's ok", "it won't happen to me" mindset.

One of the key turning points came through the creation of model project sites. Instead of instilling change all at once in all the sites, a handful was selected as model sites. Efforts were focused on having the supervisors trained on and aware of the safety standards. In addition, there was recognition that the contract workers have a different level of understanding and efforts were made to reach their level of understanding. As a result, standards were implemented faster and when people see results, they become believers and, importantly, advocates.

"The model site was a catalyst for significant improvement. Once people realized what their peers could accomplish, they wanted to be part of it. In fact, some contractors were quite enthusiastic and went ahead to form their own 'integrated safety organization without any prodding by our Tata Steel team."

"This healthy competition between project sites has also helped to raise the bar even higher and provided motivation to Tata Steel's own employees as well," added Mr Singh.

Lost Time Injury Frequency Rate



Phase 3: Sustaining the safety way

Continuous improvement of a safety culture requires ongoing strengthening of policies and procedures, training and motivation, accountability, and employee buy-in. Safe behaviours instilled at work are carried home, which influences the community.

"Safety is a journey, not a destination and continuing on this journey is critical. The planning must be thorough, just as you would plot your own trip, and recalculating could be necessary so that progress toward your goal is not thwarted," said Mr Krishna.

To keep motivating the Tata Steel organization, measures were taken to drive safety culture momentum including:

- Operating discipline – doing it right each time by one and all
- Rewarding and recognizing positive safety behaviour
- Taking preventive and corrective actions to reduce and contain non-compliance
- Conveying the message of "we care for you" and demonstrating the message through actions
- Monitoring of "Leading Indicators", such as Good Citizens or Safe Act Index

"Open sharing not only created transparency but also provided leaders a common goal to generate a dialogue with the organization," said Mr An and Sen, Vice President, Total Quality Management and Flat Products, Tata Steel Limited.

"We discovered an interesting thing: changes do not involve extra work, they actually cut down on it! As a manager, I'm out on the floor on a routine basis and if I take a few minutes while I'm there to talk with employees about safety, I'm not really taking on new "work." Plus, by promoting safe behaviour and, thereby making employees safer, we can reduce the number of incidents that occur – and the subsequent investigations that we would have to do," said Mr Krishna.

Case Study.
TATA Steel.
India.
Mining and Metals.

Sometimes quick safety wins help build support. The use of proper scaffolding was one of the quick wins in the contractor safety management process. At project sites, traditional scaffolding comprising cane rods tied together was the norm. These older techniques offer very little stability. The new steel structure scaffolding now used on job sites offers a stable platform for contract workers to carry out their work. The assembly and dismantling of the scaffold structure is managed by a third-party specializing in this area. This new arrangement relieves Tata Steel of additional resources to set up the scaffolding. These scaffold gives workers tremendous confidence while working at height, which not only reduces potential for injuries but also improves productivity and work quality!

Respecting the tradition, while respecting safety. Tata Steel had to convince women contract workers to replace their traditional saris with shirts and pants at the work site. Initially, the Tata Steel management was reluctant to implement the change, because they were respectful of the tradition and culture and were concerned about the negative reaction from female contract workers. It was the engagement of the women workers in a dialogue, seeking their views on the proposed change which enabled consensus and the breakthrough. They understood the safety benefits of proper work clothes but requested appropriate changing facilities. This was agreed by the management and today, all women contract workers wear proper work attire at all Tata Steel project sites.



Results

Between 2005 and 2007, Tata Steel implemented a variety of creative safety initiatives, including an Online Incident Reporting System to capture incidents or near-misses, so that their cause(s) could be identified, and suitable preventive and corrective measures taken.

In 2005, Tata Steel joined a diverse list of global industry leaders and multi-national companies that have come together to make a public commitment to improving workplace safety. They signed the World Safety Declaration. It was testament of Tata Steel's commitment to lead and inspire the organization to change their behaviour while still in the midst of the safety improvement journey. Tata Steel reported their safety practices, challenges and progress at the 2008 World Safety Declaration Report. For more details, visit www.worldsafetydeclaration.com.

Tata Steel received the World Steel Association Excellence Recognition in Safety and Health award in October 2009. Tata Steel's contract workforce program provided comprehensive training prior to the construction of a new blast furnace. The new plant was built and commissioned without lost time injuries, recording 35 million injury-free hours during construction.

"Our vision is no fatalities and no injuries. Any safety effort – including those based on behaviour-based safety approaches – is doomed to failure unless management leads and supports the effort. That's because employees must be able to look to management for leadership. They must believe that their managers place a high priority on safety and that they are willing to live according to safety principles too. They must understand that safety, not business, is management's top priority, so they'll make safety their own initiative," said Mr Nerurkar.

Case Study.
TATA Steel.
India.
Mining and Metals.



Tata steel Limited Profile

Backed by 100 glorious years of experience in steel making, Tata Steel is among the top ten steel producers in the world with an existing annual crude steel production capacity of 30 Million Tonnes Per Annum (MTPA).

Established in 1907, it is the first integrated steel plant in Asia and is now the world's second most geographically diversified steel producer and a Fortune 500 Company.

Tata Steel has a balanced global presence in over 50 developed European and fast growing Asian markets, with manufacturing units in 26 countries.



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