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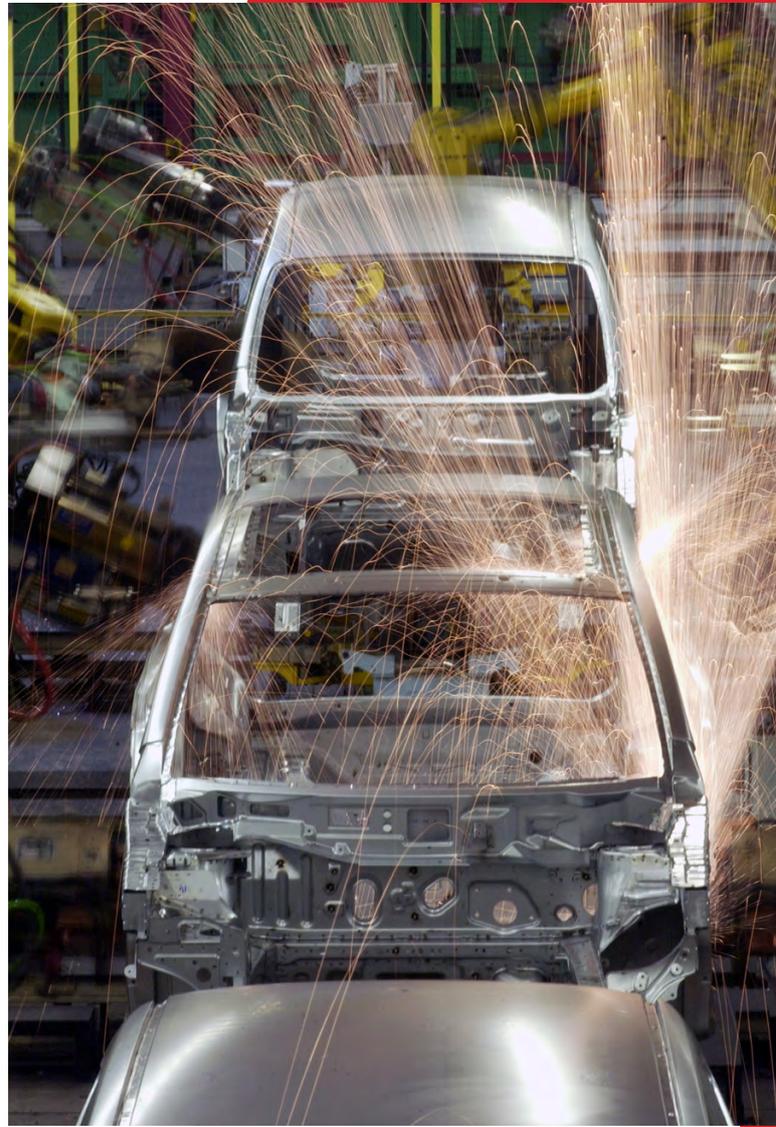
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The evolution of plant safety: a matter of culture

Nissan Manufacturing UK Ltd Sunderland plant (NMUK SP) continues to be one of the most efficient car manufacturing plants in Europe; this position has been maintained year on year through continuous improvement with specific focus on quality, cost and on-time delivery (Douki Seisan) key performance indicators. "Although our Q,C,D performance remained very strong, we identified further scope to improve the plant's accident rate and additionally in 2003, the plant also started to experience an adverse trend" said plant Health and Safety Manager Mike Vezmar.

In response, NMUK SP carried out a benchmarking activity focusing on Nissan North America (NNA), who had made a significant reduction in their accident rate through their Safety One initiative. On closer investigation it was discovered that NNA had entered into a partnership with dss+. By 2005, NMUK SP decided to engage with dss+ to help achieve a breakthrough in workplace safety – while maintaining their title as one of the most efficient car plants in Europe.



"We stumbled onto some of the principles dss+ was already using. The benefit of dss+ coming on board in 2005 was it helped us get a clearer direction and set a better vision in terms of the route forward."

MIKE VEZMAR, PLANT HEALTH AND SAFETY MANAGER

Situation

The Sunderland plant manufactures three vehicle types and employs 4,700 regular workers, in addition to 1,200 contractors. Prior to the dss+ engagement, the plant had its own system of internal measures for health and safety based on a target system heavily utilised by Nissan throughout the world. Under the target system, middle and upper management were held accountable for meeting plant safety requirements.

Case Study.
Nissan.
UK.
Manufacturing.

The evaluation report undertaken by the dss+ team in 2005 showed upper management mostly espousing a good safety philosophy. As one manager explained, "damaging your people is damaging your assets."

What developed from the evaluation report was a clear mandate to elevate safety to the same level of importance as quality, cost and delivery - the plant's other key objectives and performance measures.

By 2005, NMUK SP had won accolades as the most efficient car plant in Europe for several years, but senior management wanted to be 'the best of the best' not only in terms of Q,C, D, but also in terms of safety. As previously stated NNA had worked with dss+ and significantly improved its safety metrics. So NMUK SP turned to dss+, whom they saw as the "primary benchmark" for health and safety practices in manufacturing.

Solution

Given the large size of the plant, dss+ worked with Nissan to create a tailored plan to spread dss+'s 12 elements for managing safety throughout NMUK. The approach involved training selected senior-level engineers, controllers and supervisors with intimate operational knowledge so they could return to the factory and teach employees what they had just learned. The programme,



Safety is equal to quality, cost and time.

MIKE VEZMAR, PLANT HEALTH & SAFETY MANAGER

coined "train-the-trainers," involved six senior employees from a range of disciplines and departments at the Sunderland plant. They met for one week with dss+ consultant Dennis McGowan at a dss+ plant in Northern Ireland with a world-class safety standard.

"It was a major undertaking," to train the Sunderland plant seniors in the entire dss+ safety system in one week's time, recalls McGowan. In order to make sure the Nissan trainers could teach their own employees in the dss+ safety system, they were assisted in developing a deeper appreciation and understanding of the culture surrounding health and safety improvement. McGowan taught Nissan seniors not only dss+'s safety philosophy and procedures, but also techniques and methodologies for teaching and engaging employees on issues of health and safety at all levels of operations on the shop floor.

"We all came away very motivated. It was like switching a light bulb on, the message was very clear, as was the direction," recalls Mike Vezmar. Senior management continued to work with dss+ consultants after the training, for instance in drafting a company-wide health and safety vision statement, and for ongoing guidance on implementing the dss+ 12 step process for safety.

Implementation

"Procedural changes to improve safety were easily implemented in a short period," Mike continued. "However, creating behavioural shifts to encourage employees to follow crucial safety practices took more time and effort," he said.

"This was such a different approach, and specifically dealing with behaviour, but involved staff having a stake in the safety programme, most employees found it refreshing [the dss+ safety programme]."

"But", Mike added, "some people were not completely convinced at that stage. There was particular hesitation about achieving a zero accident injury rate, part of the dss+ world-class safety standard."

Staff throughout the plant began multiple-day courses. By the third day of the course, Mr Vezmar noticed growing acceptance of the new approach. About 80 percent of employees reported through course feedback sheets that they felt the dss+ safety approach provided "a good route forward." Employees felt the changes would allow involvement in the company safety programme benefiting themselves and others.

Following what they had learned at the dss+ training in Northern Ireland, the Nissan team also enhanced the reward and recognition system for employees who excel in achieving top-level health and safety performance and practices. Employees and sections with excellent safety performance, or who propose and implement improvements in their own safety procedures, enjoy company-wide recognition.

Recognition for shop-level workers is crucial for engaging employees in day-to-day safety practices. "Management structure and controls need to be in place, but ultimately it is the staff who deliver. Involvement leads to commitment and ownership which in turn will ultimately lead to achievement of our goal of zero accidents" according to Mike Vezmar.

"If there was a problem, they would err on the side of safety. Actions speak louder than words."

DENIS MCGOWAN, LEAD DSS+ CONSULTANT & TRAINER

Results

Workers' safety at the Sunderland plant has improved dramatically since working with dss+. The Lost Time Injury (LTI) rate fell by 70 percent from January 2005 to March 2009, from 17.0 per 1000 employees to 5.1 per 1000. The number of lost time work days also decreased by 70 percent in that same period, from 210 per 1000 employees to 62 per 1000 employees.

Employees have also been happier and healthier in their jobs. The absenteeism rate for employees fell from 2.83 percent in December 2004 to 1.53 percent in October 2009, with the Zero Injuries Programme (ZIP) being one of the main contributors. NMUK SP also undertakes biannual employee safety satisfaction surveys. The November 2009 survey results showed 70 percent of plant employees have a high level of satisfaction with health and safety practices and instruction at the Sunderland plant.

NMUK's return on investment by implementing the improvements in safety has been substantial, although the more fundamental benefit has been the significant reduction in accidents.



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Nissan.
UK.
Manufacturing.

People thought casting plants were always dirty and dangerous. It didn't need to be that way. It was the way we perceived it. It was our management approach to safety that was causing us to have a higher accident rate.

MIKE VEZMAR, PLANT HEALTH & SAFETY MANAGER

Moving forward in a competitive market

The NMUK SP maintains its stature as one of the most efficient car plants in Europe, all while striving to achieve world-class ranking in safety for its employees. Increasing competition from car manufacturers in leading competitive countries like India and China is always a challenge, but Mr. Vezmar says the dss+ system has proven that working safely is not detrimental to efficiency and in fact it enhances competitiveness.

Today, NMUK SP is fully committed to its safety principles and has adopted them entirely, thus forming the foundation on which the SP Zero Injuries Programme was developed. They are continuing to strengthen their 12 element safety programme (based on the dss+ model) and develop it further in conjunction with their TQM objectives deployment policy. Implemented in conjunction, these tools serve as a strong foundation for managing and improving their health and safety performance.

"The best thing about the system is that dss+ wholly believes that their principles will not work without management commitment. If it's believed in and driven from the top, it will work, and zero lost time injuries are achievable," Vezmar says.

The Sunderland plant continues its zero lost time injuries journey, with some sections within the plant having already achieved that goal. "We will push on to try to deliver for the whole site by 2015, which is a major, but not unachievable, challenge," said Vezmar.

Nissan first made its commitment to manufacturing in the UK in 1984 with the establishment of the Sunderland Plant.

- The first car, a Bluebird, rolled off the line in 1986. Since then, the plant has grown to become Nissan's centre of production for passenger cars in Europe.
- Sunderland has been named the UK's biggest car producer for the last 12 years running and the biggest car exporter since 2000. In fact, one in every three new cars built in the UK today was a Sunderland-built Nissan.
- The plant now represents over £2.4 billion of investment and directly employs 4,700 staff. Its presence in Sunderland has led to companies such as Calsonic Kansei, Hashimoto and Unipres to set up manufacturing bases in the region.
- Nissan's investment in Sunderland still continues today and in 2010 will see the launch of its 12th new model, the Juke compact crossover, which will be built alongside the Qashqai and Note.



Assignment

Achieve a breakthrough in workplace safety



Offering

dss+ 12 step process for safety; train-the-trainer; company-wide health and safety vision statement



Impact

- The Lost Time Injury (LTI) rate down by 70% from January 2005 to March 2009
- The number of lost time work days decreased by 70% in the same period
- The absenteeism rate for employees fell from 2.8 % in December 2004 to 1.53 percent in October 2009



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