Nissan Manufacturing UK Ltd Sunderland plant (NMUK SP), England 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 DuPont. By 2005, NMUK SP decided to engage with DuPont 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 DuPont was already using. The benefit of DuPont 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 & Safety Manager
In order to make sure the Nissan trainers could teach their own employees in the DuPont 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 DuPont’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 lightbulb on, the message was very clear, as was the direction,” recalls Mike Vezmar. Senior management continued to work with DuPont consultants after the training, for instance in drafting a company-wide health and safety vision statement, and for ongoing guidance on implementing the DuPont twelve step process for safety.

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 DuPont and significantly improved its safety metrics. So NMUK SP turned to DuPont, whom they saw as the “primary benchmark” for health and safety practices in manufacturing.

SOLUTION

Given the large size of the plant, DuPont worked with Nissan to create a tailored plan to spread DuPont’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, 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 DuPont consultant Dennis McGowan at a DuPont plant in Northern Ireland with a world-class safety standard.

“It was a major undertaking,” to train the Sunderland plant seniors in the entire DuPont safety system in one week’s time, recalls McGowan.

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 needs to be in place, but ultimately it’s 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.

RESULTS

Workers’ safety at the Sunderland plant has improved dramatically since working with DuPont. 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.

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 DuPont 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 DuPont 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 DuPont 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.

“...they would err on the side of safety. Actions speak louder than words.” Denis McGowan, lead DuPont consultant and trainer