

## LEADERSHIP AND SAFETY CULTURE AT SPIE BELGIUM

### 1. Organisations involved



### 2. Description of the case

#### 2.1. Introduction

SPIE Belgium develops effective solutions and multi-technical services in the field of energy, industrial piping systems, traffic & transportation management and engineering. It offers its customers a broad range of multi-technical services, based on its expertise and competence. The principal markets in which SPIE operates are:

- Building Systems
- Industry
- Infrastructure

As part of a multi-annual outsourcing contract, SPIE Belgium / MSOS contracts mechanical and piping maintenance works at Total Refinery Antwerp. This form of collaboration requires the alignment of operating and safety cultures on the one hand and between the partners (contractors) and the customer (petrochemicals) on the other hand.

Total Refinery Antwerp, situated at the Port of Antwerp, is the largest and most complex refinery of the Total Group and the second largest refinery in Europe. It is an important link in the integrated petrochemical complex Total provides in Belgium. At Total Refinery Antwerp, the temporary trade association SPIE Belgium / MSOS contracts mechanical and piping maintenance work within a multi-annual outsourcing contract that includes both preventive and remedial maintenance. It employs around 50 workers and one prevention advisor on site.

#### 2.2. Aims

After considerable efforts in the field of engineering and safety management systems, SPIE Belgium had optimised its approach to equipment and organisational issues. An analysis of accidents and incidents reported over the past two years at SPIE Belgium identified the behavioural component as the main cause of accidents.

Spie Belgium wanted its own employees and third parties to contribute actively to safer maintenance. The final goal was to achieve safer maintenance: fewer safety incidents and zero accidents. To reach this goal, Spie Belgium chose to focus on a special health and safety topic every year. It ran an LMRA

(Last Minute Risk Analyses) campaign in 2008, and in 2010 it has focused on the ergonomics of site activities, mainly to raise awareness of issues relating to the provision and use of accessories during transport and manual lifting / handling of materials. In 2011 the full Board of Directors wants to emphasize the importance of safety by monthly safety visits to sites by all Board members.

## 2.3. What was done, and how?

As a contractor, Spie Belgium comes into contact with different customers and their safety cultures and consequentially, different attitudes towards safety. Each organisation is characterised by its global corporate culture. Culture is a very complex issue and in most organisations, different types of culture or subculture arise / exist. With the objective of aligning different business and safety cultures, Spie had taken actions both on an organisational level and in terms of users in the workplace in order to work on the behavioural component. After analysing the results it was revealed that the behavioural component was the main cause of accidents and incidents at the workplace.

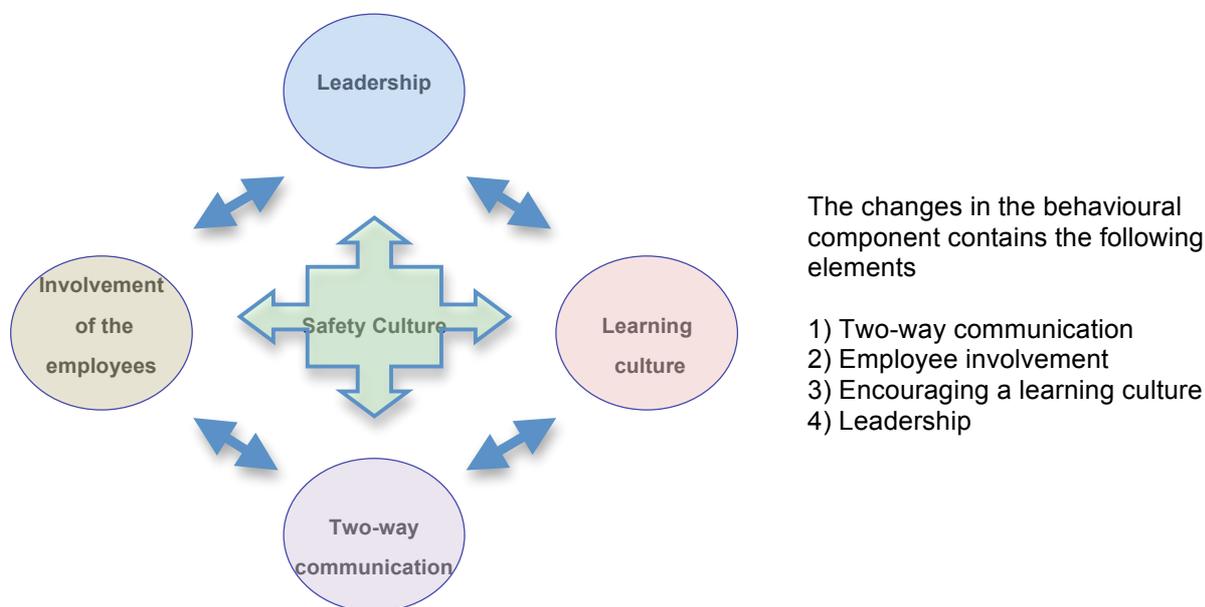


Fig. 1 – Principles of Safety Culture

### 1) Two-way communication

From the initial phase of the contract between SPIE and Total Refinery Antwerp it became clear that both companies needed to align their company and safety cultures, given the fact that these were different between the two parties. From the start of the contract a SPIE Belgium prevention advisor was present at the site at all times. Through frequent but informal meetings, the Total Refinery Antwerp culture was conveyed to SPIE technicians via toolbox meetings, written notes and informal discussions.

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Good communication by both parties and trust in the certified management system (OHSAS 18001) led to a successful approach. The cooperation between the two companies was evaluated and improved whenever necessary, using milestone evaluation dates<sup>1</sup>. Total Refinery Antwerp has its own monitoring and evaluation system for the various contractor companies working on the plant, called “W 10 audits”. SPIE did not regard the W 10 audits as an additional burden. Instead, it used the audits to motivate and evaluate its own employees. A simple measure implemented together with the audits was a bonus system for employees and teams achieving good results in the audits. These were simple and symbolic, but had a positive impact on the employees and were one of the reasons why SPIE Belgium, in competition with 59 other contractors, received the “Safety Award” from Total Refinery Antwerp. This was despite the fact that SPIE was contracted for the activities with the highest risks within Total Refinery Antwerp.

Unsafe situations or incidents were always communicated to the operational department of Total. This information came directly from the technicians. The flow of information was very important, especially after an incident occurred. Studies showed that normally, many minor incidents happen before a serious accident actually takes place. These may be due to technical, human and/or organisational issues. Because all incidents contain a lot of information about risks and missing measurements, it was decided that it was useful to analyse incidents and to keep information about them. To do this, a campaign was started to motivate the employees to report any unsafe situation or incident. It was necessary to teach the employees the importance of reporting risks, incidents and accidents. In this way, SPIE Belgium’s supervisors motivated their employees to report any dangerous situation or incident.

Because there was a simple and well structured system for reporting, it was easy for the employees to communicate any incident or unsafe situation. If a report was made, the supervisor in charge always looked for the root cause of the problem at the location of the accident along with the employee. The employees needed to understand that even if they had caused the incident they were never regarded as responsible for it happening. Such a culture of not blaming anyone is of crucial importance, as it means that the employees work together and look for the causes of any incident and thus avoid more dangerous situations in the future.

## **2) Stimulating the involvement of the employees**

After the root cause of an unsafe situation or incident was understood, the employee and manager would both start looking for a solution. The employees were also involved in the decision-making process about solutions that involved their safety. Before taking the final decision managers always asked for the employees’ opinion. This showed employees that they were taken seriously in matters regarding the definition of safety policy. Toolbox meetings were frequently used for finding mutual solutions. The analysis and the solution were reported with a simple form called FOCUS (also used if solutions were found on the spot).

Even with very stringent safety licensing and after the explanations given by Total Refinery Antwerp, many unexpected risks were discovered with this approach.

It is always possible for the situation on site to be different from the one in the initial theoretical analysis. Because of this, in 2009 SPIE Belgium started the LMRA (Last Minute Risk Analyses) training programme for all its employees. LMRA is a procedure implemented to ensure that technicians make a last minute risk analysis before starting any intervention. The objective of this is to enable technicians to detect and evaluate any risks on the site that were not mentioned in the first risk analyses and/or licensing systems between Total Refinery Antwerp and SPIE.

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<sup>1</sup> FYI: milestones = key dates, actions or moments during any project

# CASE STUDIES

In addition, monitors perform weekly tours for the observation of safety and prevention. These tours are also made easier by the LMRA & FOCUS documentation. Instead of starting from scratch during their risk assessments they can use the technicians' LMRA/ FOCUS reports and get the most important information from them. Monitors can also evaluate the reports themselves as well as the solutions proposed.

### 3) Learning culture

To guarantee that incidents and dangerous situations are reported, it is they must not be attributed to human error. If the employee is considered responsible for the incident, he may choose not to report anything the next time an incident occurs. Gradually this can completely stop the communication of incidents. The consequence of this is the loss of important information necessary to develop better prevention measures in the future. To avoid this situation, it was necessary to implement a corporate culture where people are willing to learn. The approach was for supervisors to actively involve employees in the decision-making process for safety matters. When an incident or a dangerous situation occurred, the employee looks for reasons and tries to find answers to the following questions: What precisely happened? Why haven't we been aware of the risk? What can we do to avoid a similar issue in the future?

This evaluation is always performed with the involvement of the employee, since he/she is the person who is most familiar with the real situation on site, and is therefore normally able to make a significant contribution to avoiding a similar incident in the future

The manager's aim is to ensure that everyone in the workplace is well trained and informed about safety at work and possible risks. Everyone in the company has a VCA certificate <sup>2</sup>. For each critical task that is performed, it is necessary to have taken a training course; no one does anything without a licence. Some examples of courses offered are: rigger, claim approver, entering confined spaces, first aid, etc.

### 4) Leadership: the crucial role of the management

Because of the importance of strong safety policy, management has engaged in much reflection and taken numerous actions to create a good safety culture. For example, communication between managers and employees and the way the supervisors deal with their employees were both important factors that were taken into account while creating the health and safety culture.

It is important to understand that the example set by the managers on safety had a real effect on employees' behaviour. Senior management within Spie has understood this message very well. They support the supervisors and the prevention advisors in changing employee behaviour in this direction. Within Spie safety will always be a priority. Each day every management member invests time in safety and health issues at work. From 2011 Spie will invest even more in safety awareness for its entire Board, and non-operational managers will also make monthly site safety visits. These will always take place with other prevention advisors accompanying, and according to a rotating schedule. This will ensure that everyone in the company understands the importance the senior management gives to all health and safety issues.

Along with the top management's actions and the health and safety visits, on a daily basis the supervisors motivate their employees to work in a safe manner – especially when under pressure. They make sure that they get the necessary information for safety and attend to any health and safety issue he observes. Safety issues discovered during safety observation of the employees are

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<sup>2</sup> Qualification in accordance with the Safety, Health and Environment Checklist for Contractors

immediately corrected during the safety tours of the supervisors.

## **2.4. What was achieved?**

Spie has evolved a proactive approach towards work accidents. By investigating incidents and dangerous situations it was able to implement preventive measures before an actual accident occurred. The involvement of all parties concerned, employees as well as senior management, has ensured that the company has successfully evolved to a better safety culture.

The most visible result of this is the lack of accidents, which is surely no coincidence in this field of work. Another proof is the improved communication within SPIE but also between the two companies.

In conclusion we can say that specific safety measures in maintenance activities should not only relate to physical/material components. The cultural component is also essential to the achievement of sustainable results.

## **2.5. Success factors**

In the end we can say that aligning the safety cultures of the two companies was only possible because of open communication, good leadership, the active involvement of the employees and the innovative approaches of the prevention services. The participation of (senior) management was very important for showing employees the importance given to all health and safety issues within the company.

Key actions within this process were

- newsletters and information management
- safety walks
- toolbox meetings and
- extensive training courses

## **2.6. Further information**

ir. Werner VANCAYSEELE  
QSE manager

Tel : +32 (0)2 529 62 24  
Mob : +32 (0)495 53 95 99  
Fax : +32 (0)2 529 73 71  
w.vancayseele@spie.com

SPIE Belgium  
Digue du Canal/Vaartdijk 112  
1070 Anderlecht

## **2.7. Transferability**

The ideas and tools in this case study are based on fluent and open communication, the involvement of all concerned and a committed leadership approach. These are concepts that can be implemented in any company within all sectors. The knowledge and information contributed by everyone that was involved were the key to the success of this case study.