



SUPERVISING A VARIETY OF BACKGROUND-CULTURES ON SITE

1. Organisations involved

Essent, Claus power plant



Essent is the largest energy company in the Netherlands. In total about 2.6 million private and business customers purchase gas, electricity, heat and energy services from Essent. Essent (including its predecessors) has over 90 years experience of generating, trading, transmitting and supplying electricity. Essent has been in the business of supplying gas for 150 years.

2. Description of the case

2.1. Introduction

Being the largest energy company in the Netherlands, Essent is also the leading producer of sustainable energy in the Netherlands. Essent strives to provide energy using the most affordable, reliable and sustainable means possible. At the same time, Essent continues to seek solutions that are better for people, the environment and society as a whole. At Essent safety is seen as a part of creating a people friendly environment.

Over the last 2 years, Essent is modernizing the Clauscentrale in Maasbracht. This is a unique project for Essent. A new plant will be built consisting of 3 Gas turbines of 280 MW each. Some installation parts of the former turbine, called Claus B, will be re-used and another 450 MW can be generated. This brings the total capacity to 1.275 MWE. The two former (identical) plants generated 640 MW each. The efficiency of the new plant, named Claus C, will be increased from 39% to nearly 59%. Furthermore the new Claus C power plants CO₂- and NO_x-emissions will be considerably lower. Surface water heating effluent will be more or less half of present values.

The company's management pays a lot of attention to safety in this modernization project. The priority given to safety is a consequence of the company's sustainable and safe strategy. This has lead to a very proactive and supportive management attitude for safety and health issues, e.g. a safety planning and implementation strategy, safety became a relevant factor in management decisions, and safety & health performance is now an integral part of management evaluation.

2.2. Aims

The new construction project is a unique and complex project, in which many contractors, with different background cultures and company cultures, are working together. This presents challenge on issues regarding safety and health. Project leaders realize tasks and plans can be managed, but for safety, behavioural issues are important. This requires attention to their own role in giving the good example and addressing health & safety issues, i.e. role behaviour that is important in creating a high level safety culture. This is especially the case since many employees on the site work for contractors, and contractors attitude regarding health and safety issues vary between the involved firms.

Essent's attention for safety is related to their CSR (Corporate Social Responsibility) ambitions. The Essent CSR report states that the company is occasionally confronted with unforeseen safety issues ever since they have been working with contractors. Unfortunately there is a gap between the company's safety performance and the contractors' safety performance; based on statistics employees working for contractors have approximately 30% more accidents than Essent employees.

Essent wants to raise standards of safety not only for their own employees, but also for the companies that work for them. Improving the safety performance of contractors is one of the Health, Safety and Environment (HSE) priorities, and as such part of their CSR strategy.



2.3. What was done, and how?

One of the first measures to enhance the safety culture, was the recruitment of (new) supervisors by the Essent Projects organisation, to supervise all involved employees in the project. The attitude for safety was an important selection aspect in the recruitment process. Second measure that was implemented was the improvement of the selection process of contractors. Also every contractor was related to one specific Essent supervisor. As a third measure a Safety Awareness training programme was conducted for all supervisors. The

CASE STUDIES

major message in this programme was; “the (Essent) supervisor is and will be responsible for safety and will display exemplary behaviour.”

In the following the different measures are described in more detail:

1. Including OSH aspects in the recruitment of new supervisors

By making the safety attitude an important selection aspects in the recruitment process of supervisors, only supervisors that gave priority to safety passed the recruitment process. In this way safety became an important issue, next to other important issues like quality, operations and maintenance.

2. The contractor selection process: the 7 step model:

The 7 step model for contractor selection was implemented to improve contractor safety and at the same time strengthen the involvement of the Health & Safety department in the process of the selection of contractor firms.

The first major part of this model is a pre-qualification assessment. This assessment is based upon VCA (Dutch system for contractor criteria) or equivalent, accidents statistics and the quality of an example of a HSE-plan for an exemplary work task. During the qualification stage a site visit is conducted on each contractor's job site. Technical qualifications are part of the assessment. As part of the contract, the contractor receives the Claus C HSE-framework in which the basic HSE-standards have been outlined and the Claus C HSE-plan. The contractor needs to provide a project specific HSE plan as well. Next step is the evaluation of the contractor's HSE plan. Elements of the plan – among others – are: HSE policies, HSE- roles, statistics and toolboxes.

An important aspect of the model is the cascading of the HSE-responsibilities to all levels of the project organisation. Prior to commence any works on site a (VCA, or equivalent) certificate is required, and every employee must have attended a project induction training. Next, the contractor organises a kick off meeting to discuss all ins and outs regarding the project management and the way of working. Here all expectations are discussed and documentation is explained. Every contractor prepares several work packages for a number of clustered jobs, each including a Risk Analysis and a Task Risk Analysis (TRA) in case of any specific task- related risks. Counter measures based on the outcome of the risk analysis need to be described also. When the work package has been approved by the site supervisor and the HSE-officer, site supervision will attend the start of the toolbox talk in which the work package, the risk analysis and the TRA will be discussed.

Subsequently every day a Last Minute Risk Analysis (LMRA) needs to be executed. This means that potential hazards in the working situation are evaluated using a short checklist every day. It can be hard work to keep this routine on the agenda.

In the end, the contractor's performance is evaluated.

3. Total Safety awareness training sessions:

The total safety awareness training for supervisors was introduced to create the highest level of safety. Main elements of the training are supervision, behaviour and commitment on the work. The main objective of the training was to reduce accidents and incidents by establishing safe work processes, due to the consistent attention of all supervisors in the field.

Before the programme could start, 100% (top) management commitment was necessary. In terms of management behaviour that meant addressing every unsafe observation, immediately solving any occurring problem if possible and exemplary wearing of work clothing and PPE's (personal protection equipment). This also meant at least one representative of the company's management team being present at (the opening of) the training sessions, and at the contractor and coordination meetings.

CASE STUDIES

- First, the training programme was presented to the Essent Claus C project team.
- Next a session was organized with project leaders and site supervisors, including the main subcontractors. Important was the presence of one of the members of the management team at the beginning of the session. Goals of this session were:
 - o Insight in the theoretical background of the Total Safety Awareness programme;
 - o Safety awareness in the perspective of the participants' own risk behavior;
 - o Recognizing unsafe behaviour and the role of the project leaders and supervisors;
 - o Communication skills for addressing safety with employers;
 - o Registration of unsafe behaviour and the use of the observation form as a base for risk monitoring;

After the session the trainees commit themselves to a personal safety goal, e.g. by sending the assignment to themselves via a letter.

- The 3rd step of the programme was a practical safety awareness training for the participants. Small groups of participants go to the shop floor and spot and address unsafe and safe behaviour in the field.

The training did not only address the aforementioned behavioural aspects, like leading by example, acting in a consequent manner, motivating people for safety, but also focused on defining mitigation actions. For example, it was perceived important to address safety issues to foreign contractors in a way that was understandable for them and also fitted their safety perspective. It is important for supervisors to realize that some of them have already improved their safety performance beyond the requirements in their home country, and it can be hard having to tell them this is not yet enough for working with Essent. Still the message has to be given in a respectful way.

Next, management's commitment and leadership accountability is shown by several other actions:

- Bonuses for managers are dependent on their safety performance;
- No grey area's, e.g. no legitimate certification means no entry to the site, no start of the works on site before the HSE-plan has been submitted, no start of the works until work packages (inc TRA's) have been approved and a permit to work has been issued;
- Safety walks with contractors and Essent supervisors according to the HSE-barometer system;
- Proactive attitude towards safety;
- One language (English) as the official project language and
- Absolute support: delays and related potential claims may be accepted for substantiated safety reasons.

2.4. What was achieved?

Accidents, incidents, and risky behaviour are monitored by the definition of a 'risk score (used for a safety barometer tool). The risk score is a figure between 0 and 10 and consists the following elements:

- Time of observation;
- Number of observed persons;
- Number of unsafe actions;
- Severity of the unsafe actions (Fine & Kiney method).

Next to this figure, the 'personal goals' in the (training) workshop sessions was monitored.

In general one can say that:

CASE STUDIES

Participants are very enthusiastic and involved in the project, all supervisors /project leaders were willing to participate voluntarily in the programme and became more and more aware of their own behaviour.

In the first session of observations, risky behaviour was still observed, in the following days it started to be less and less till the present. This curve was followed by each contractor that had commenced works on site. Start and finish of the curve depend on contractor's safety culture and efforts to minimize risks. Moreover the start-up of discussions on 'what is safe behaviour' and 'what it is not' lead to a better harmonization in safety standards between the varied subgroups on-site. This harmonization process is a prerequisite for reaching a good safety level together, and was really a challenge in such a varied working environment.

2.5. Success factors

This process has been successful because management really acts in the way they speak (walk the talk). Management is very proactive. They have selected their supervisors not only on quality but also on safety. Only those employees that have shown that they give priority to safety can become a supervisor.

However there were some issues during the process that had to be overcome:

In some cases contractor supervisors continued to hold on to the old way of working. Another issue arose when contracting companies brought in new employees, sometimes smaller companies with a different safety mindset. This is a consequence of main contractors being selected according to strict assessment rules, but still employing a large number of people from subcontractors who are not used to working on industrial premises where high safety standards are required. This was an extra challenge for Essent.

These issues were grasped by weekly safety walks that push contractors to continuously improve their safety standards. This way Essent site supervisors and contractor supervisors review their safety behaviour on the job site. The results have been reported in a safety barometer tool, displaying weekly/monthly/yearly on site safety performance results. This tool also gives the opportunity to review project safety performance per contractor. If the required safety levels were not accomplished due to unwilling supervisors, the company was not afraid to replace supervisors, if necessary.

Above all, by evaluating contracts, safety experiences from the past can be taken into account by contractor management in the selection process for new projects.

The connection of safety to the operational processes can be seen as a success factor of the project. Instead of a separate SHE meeting, safety is more and more an issue that is discussed in every meeting. This way issues can be tackled directly by the responsible manager.

2.6. Further information

Essent Claus Power plant

Voorstraat 19

6051 JP Maasbracht

The Netherlands

2.7. *Transferability*

This case is characteristic for supervising on e.g. construction sites, where a variety of employers with different backgrounds is working together, coming from different organizations, and so with a variety of (sub-) cultures. The consistency of this approach (as seen in the safety awareness training) in addressing unsafe behaviour, displaying exemplary behaviour by management and the attention for safety in the selection of supervisors can be useful for all type of projects. Nevertheless, especially in projects where people with different safety perspectives and safety standards work together, it is even more important to show this consistency in the behaviour of supervisors.

The 7 step model for contractor selection is valuable for all companies that work with contractors. It is important to discuss safety with contractors at 3 points: in the selection phase, on site when supervising, and after completion of the tasks. For improved results it is important to monitor the safety performance and communicate this performance with the contract management. Finally this will bring contractors safety culture to higher levels. Contractors unable to adapt the required safety standards may be passed for future works.

3. References, resources:

- http://www.essent.eu/content/about_essent