

### **ABSTRACT**

After thorough evaluation the decision was made at the home market office of Boskalis that their SHE-Q system was ready for an update. With the full support of Management, the updating and implementation of the system was undertaken using the Deming Cycle. With the goal of reaching zero personal accidents, the new system went on the road and the so-called Road Show with a specially outfitted bus visited over forty sites in the Netherlands carrying the new SHE-Q message to all employees.

# **INTRODUCTION**

In October 2007, a management review at the home market office of Boskalis by, in Rotterdam, the Netherlands, revealed that its SHE-Q system was up for a proper revision – more directive, less paper.

The kick-off was held a few months later in February 2008, and in April 2009 the company was finished updating and implementing the SHEQ Management System (Figure 1). During this period of time Management showed full commitment to the updating process in monthly sessions where the policy documents and the primary processes, from "prospecting"

through to the "evaluating" of projects, were reviewed.

During the review of the policy documents it was clear that in line with the Group policy, the ultimate objective – zero personal accidents – was clearly accepted by all and that for this reason following up on Health and Safety issues was considered to be of paramount importance for the execution of operations safely and under healthy conditions. For this the "Deming Cycle", an iterative four-step problem-solving process was adopted in which instruments of SHE-Q system were defined to ensure the proper functioning of the system.

# THE DEMING CYCLE

The Deming Cycle, named for Dr. W. Edwards Deming, a statistician, professor and business consultant, is typically used in organisations for business process improvement. As a repetitive process to determine the next

Above: After careful evaluation of safety policies and the development of a new SHE-Q booklet, the Road Show SHE-Q bus was launched. The purposely equipped bus crisscrossed the Netherlands, visiting more than 40 work sites heightening safety awareness. Shown here at shore protection works in Vlissingen, in the southern part of the Netherlands.

action, the Deming Cycle describes a simple method to test information before making a major decision. The four steps in the Deming Cycle are: Plan-Do-Check-Act (PDCA), also known as Plan-Do-Study-Act or PDSA. The cycle can be used in various ways, such as running an experiment: PLAN (design) the experiment; DO the experiment by performing the steps; CHECK the results by testing information; and ACT on the decisions based on those results.



Figure 1. The kick off to the Road Show where the first SHE-Q booklet was presented by Managing Director P. van der Linde.



Figure 2. The view inside the bus.

In the sessions, during which the primary processes were discussed, the group was first asked to clearly define the purpose of each process. Furthermore in smaller groups they were to redefine which process steps they found important, in order to control that particular process. This was done on blank sheets of paper so as not to fall back on the existing procedures. For each defined process step, the group was then asked to state critical success factors for that step and to list the main activities under these steps. Finally, responsible functions were added to the process steps.

Parallel to the management work group sessions, five sub-workgroups consisting of various project and staff members of the organisation also met on a monthly basis, reviewing the adjacent supporting processes, such as "Purchasing", "Engineering", "Surveying" and "Rental of Equipment" giving their views and input from the work floor.

All this was done with one objective, namely, to adjust the system in such a way that it increasingly forms part of the daily work routine, to make the work procedures lean

and mean, and furthermore, to have a full adaptation to the standards set forth by the International Boskalis group.

Having accomplished this analysis, the question eventually arose of how to implement this revised system in a decentralised organisation and how to further explain the management commitment towards "safety".

## **THE ROAD SHOW**

Hence, a purposely outfitted SHEQ-layout bus was rented to go out on the road, and bring the message to each and every employee, in a one-on-one setting, explaining what Boskalis as a company stands for (Figure 2).

Over a three-week period, the so-called "Road Show" visited three offices and over forty projects in the Netherlands, reaching more than two hundred and forty people.

During the Road Show, led by the Boskalis Netherlands SHE-Q department, members of the Management team – Directors, the Operational Managers and the Staff department heads – also participated in each session to show their commitment to the system.

#### The Portal

Once in the bus employees gathered around a table and were given a general overview of the things to come (Figures 3 and 4). They were informed about the latest "tool" being implemented for SHE-Q: The newly installed web-based "Boskalis Portal" on which the SHE-Q department installed a so-called "department site" where all documents for the SHE-Q system are found and can be downloaded, in combination with a new soil registration programme.

After all this was explained, the session continued at the back of the bus. This second phase of the session started off with an in-depth discussion of the SHE-Q Policies and Principles. Amongst others points, an essential question was put on the table: What kinds of additional SHE-Q actions would the participants take different or in addition to those that they would have taken before they went into the bus, at the moment they would step out the bus after this session, in order to adhere to the outlined policies?

For the issues "zero incidents" and "working in the most efficient manner", the answers ranged from "will first have to have some proper checks before we start working again" and "further increasing awareness" till "not much more than by making sure the project (safety) plans and planning are adhered to".

During the sessions other issues of the SHE-Q system were discussed such as managing risks and changes to operations and planning. Also



Figure 3. Sitting around the table – a session in progress.



Figure 4. The new SHE-Q booklet being examined by employees on the bus.



#### WILKO BARDELMEIJER

(left) with his righthand man Jeroen van der Klooster in Vlissingen, at the last session in the series of Road Show presentations. Bardelmeijer joined Boskalis bv in 1986 and has worked on a variety of projects throughout the world for Boskalis and Westminster from Algeria to Norway to South Africa, in a variety of roles as a Project Engineer, Offshore Engineer and ultimately as QA/HSE Engineer. Since 2005 to the present he is SHE-Q Manager Boskalis Netherlands, headquartered in Rotterdam and is responsible for the implementation of Safety policy and the daily operations of the department.

inspection levels not only on third-party equipment but also on third-party personnel, as their safety standards have become more and more important to Boskalis operations.

Most recently, the newly developed project and task safety risk assessment tool was introduced. Based on the prevailing project activities, risk profiles can be selected on which hazards and mitigation controls are stated. A project assessment meeting will



Figure 5. On the job in Gouda, dressed in proper personal protective equipment (PPE) gear – hardhats and vests.

determine the extent of the risks by means of assessing the possible hazards to the project.

### FROM THEORY TO PRACTICE

After the session in the bus, a Management Safety inspection was conducted. Hence, theory was directly put into practice. The Road Show approach of coming directly to the project, having a one-on-one session and a safety walkabout on the project was clearly appreciated by the employees and directly supports implementation of SHE-Q policies and awareness (Figures 5 and 6).

### **ROAD SHOW REGISTER**

During the one-on-one session, the employees raised various issues and had remarks and questions about the SHE-Q system and organisation. These issues were noted as action points on the participants' lists. As a follow-up all noted points were gathered together in the "Road Show Register" and discussed during the next following Management Meeting one month later. The outcomes of these issues

were added to the Register and sent back as feedback to each employee. Furthermore, the Road Show Register was centrally placed on the SHE-Q department website of the Boskalis Portal. Based on several messages sent to the department by mail, this was highly appreciated.

Several months later in November 2009 a follow-up session of the SHE-Q Road Show was initiated. This was done to get feedback and to determine where support is needed and to see how the SHE-Q system is being used in practice. Even now members of the SHE-Q department continue to visit all operational projects in the Netherlands.

## **CORPORATE SAFETY PROGRAMME**

This Road Show by bus illustrates how SHE-Q is approached by Boskalis locally in the Netherlands. At a corporate level, Boskalis will roll out a company-wide safety programme in 2010 setting out the Boskalis Safety Standard with a focus on safety behaviour.



Figure 6. The Road Show at the D&C Project, nearby Motorway A2 Hooggelegen, near Utrecht.

## CONCLUSIONS

The outcome of these follow-up sessions is still to be seen, but results so far are promising. It may obvious that just being out there with a Road Show to discuss safety and other SHE-Q issues gives in itself an enormous boost in awareness and in shaping employees' mindset toward the concept of Safety. Other lessons learned? Do not rent a bus, buy one.