

British Nuclear Group Sellafield Ltd/ AMEC Alliance

Worker engagement case study 5

This case study is part of a series of case studies, which give examples of best practice when engaging workers to improve health and safety in the workplace.

This case study relates to initiatives undertaken during the construction of a new Engineered Drums Store (EDS3) at the Sellafield site.

The challenge

The challenge is to provide a working environment which ensures no harm to people, while efficiently delivering a fit-for-purpose product.

A further challenge is to transfer the knowledge and success from EDS3 to the construction industry as a whole, and to instil the behavioural safety message in the 'hearts and minds' of all involved.

Achieving a safety culture through teamwork

There is no hierarchy when caring about safety! The Alliance recognises the importance of working together to deliver improvements. Consequently, it is striving towards increased involvement and contributions from the workforce in safety related matters. The Alliance regards this as key to the successful development of behavioural safety on site.

'British Nuclear Group delivers safety through its people, by being clear about our standards, by demanding the best of our leaders, and most importantly through involving everyone in taking action in our drive for safety excellence.'

*Dave Mason, Environment, Health, Safety and Quality
Director, British Nuclear Group Sellafield Ltd*

Consulting and engaging the workforce

A range of consultation and engagement mechanisms are employed to encourage and facilitate feedback from all levels of the project team. These include:

- a comprehensive induction process, briefing all workers on the Alliance expectations;
- the formal empowerment of all workers to stop and challenge activities which they believe to be unsafe;

Alliance fact file

The British Nuclear Group/AMEC Alliance is a client-contractor partnership. The partnership was created to provide a fully-integrated client and contractor team, adopting best practices from both organisations. The contractual arrangements embrace safety as a core deliverable, and there are common safety objectives set 'from blue collar to boardroom'.

British Nuclear Group is part of the BNFL Group, and is a nuclear site management company and provider of nuclear clean-up and decommissioning services.

AMEC are a UK-based international project management and services company, employing around 44 000 people worldwide. They are specialists in construction management for both public and private sectors.

- workforce contribution in the preparation and implementation of risk assessments;
- regular 'Safety Circle' meetings between operatives and safety advisors - without the attendance of project management;
- a commitment to record, consider and act on suggestions for improvement;
- a 'suggestion box' scheme, which allows concerns to be raised anonymously if required;
- a formal 'Behavioural Safety Observation System' for reporting concerns and problems. This information is collated to determine any trends or recurrent problems;
- the provision of pocket cards and point-of-work checklists stressing the requirement to report concerns.

Communication across the team

Important information regarding safety is communicated to the workforce and project management in a number of ways. In particular, practical information is made available on site via:

- posters highlighting the activities and associated hazards on site at a particular time - this is reviewed weekly;
- boards in prominent positions displaying key information and learning points relevant to the project.

Incentivising safety performance

The Alliance has developed a 'Safety Accumulator' scheme, an imaginative means of securing worker commitment to achieving safety.



Figure 1 Original formwork design



Figure 2 Improved formwork design following review

The scheme recognises and rewards good safety performance by regularly contributing money towards a cumulative total. This money is then used to benefit charitable causes within the local community.

The scheme involves the whole project team, and is owned by the workforce, who nominate the causes they wish to benefit. It has proved to be very successful in motivating workers, and generates positive peer pressure to work safely.

Example: Improved formwork structure

The initial method specified for the construction of 110 concrete columns used standard proprietary panel formwork (see Figure 1). During the construction of the first 15 columns, consultation took place with scaffolders, joiners, general operatives and project management to review this method. The intention was to improve the ease of installation, consequently reducing the risks from work at height and manual handling operations.

Following a peer review by all parties, the consensus was to manufacture five purpose-made two-piece steel shutters, incorporating a quick-release system for stripping and erecting operations (see Figure 2).

The new formwork system resulted in significantly reduced time for scaffold erection, improved working platforms for other disciplines and also reduced the level of manual handling operations.

The additional cost of manufacturing the improved formwork proved to be a worthwhile investment. As well as reducing workforce exposure to unnecessary hazards, there were operational benefits - the revised method allowed the project team to complete the column construction operation early, which reduced project costs.

Example: Behavioural safety reporting

Following consultation with the workforce, the Alliance revised an existing BNFL form for reporting safety concerns. The original form used a detailed and complex checklist of items giving rise to potential risks. Simplification of this form has created a more flexible and user-friendly means of reporting unsafe behaviour and conditions. The revised form simply states what has been observed, and what corrective action is required. The form may be submitted anonymously to the safety department.

Safety success

The Alliance can boast over a quarter of a million man-hours worked on the EDS3 project without a single reportable accident. In the 18 months or so to April 2005, as the construction phase nears completion, only three incidents have occurred which have required workers to receive first-aid treatment. This reflects the determination of the entire project team to work to exemplary standards.

‘I genuinely believe that it is vital to the success of the project to listen to the lads, and react to any concerns they have regarding safety. The Engineered Drum Store project is a good example of where regular dialogue with the workforce has benefitted the delivery of the construction work. The work is not only being delivered effectively, but more importantly, safely.’ *Ian Cowan, Project Sponsor*

‘You don’t realise it, but you take safety away with you from this job. You find yourself looking at other sites and thinking, “I wouldn’t work there, it’s not safe!”’ *Dave Bell, Bricklayer*