

THE BRUNNER MOND SAFETY PROJECT

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Brunner Mond is one of the world's leading manufacturers of soda ash and related alkali chemicals. An international company with operations in Kenya, South Africa and the Netherlands, Brunner Mond has its headquarters and major manufacturing facilities in the UK. After a period of disappointing safety performance the UK Operations management identified the need to revitalise its health and safety systems. This need was addressed with a decision to run a 3 year in-house Safety Project with a full time dedicated Project Manager. The Safety Project was launched in January 2002.

Made up of 8 main Themes, with many other individual initiatives running in parallel, the Safety Project aims to increase safety awareness throughout the company, thus reducing the number of accidents by involving as many people as possible in project work, both employees and contractors.

To date (two and a half years on), a significant improvement in safety awareness, systems and performance has already been delivered, with involvement from a high percentage of the workforce. The project is well positioned to be able to achieve its aims by the end of the 3 year period including accreditation to the OHSAS 18001 standard.

INTRODUCTION

The Safety Project was developed after the need to revitalise the health and safety culture within the company was identified. We needed a safety system that was not only adapted to meet the needs, expectations and requirements of the 21st century but also matched to the changing size and needs of our Company. In January 2002 the project was launched with a plan to run for a 3 year period with a full time Project Manager.

The project would review and, where necessary, up-date and modernise every aspect of safety management within the UK operations. The aim was to put systems in place and develop a culture where we would actively prevent people getting hurt on our sites. We also realised that seeking OHSAS 18001 accreditation would give us the discipline that was needed to make the output sustainable.

This paper gives an insight to how the project has run to date, its successes and the impact it has had on the organisation with a brief overview of what work is left to do.

STRUCTURE

Between the decision to run a safety improvement project and its launch in 2002 we looked at a range of options of how to deliver the project including buying in an off the shelf package; going to the "world leaders" to learn from their history; bringing in contract resource; or doing it ourselves.

What we realised was that we were not starting with a clean sheet. We had robust systems in place that had served us well over many years and we had excellent experience

of the successful implementation of environmental management and quality assurance systems. With a limited budget we also realised that we could pay someone else to come and re-package what we already had, and charge us for the privilege. We strongly felt that it was better to put money into actual safety improvement rather than someone else's bottom line. The decision was made.

The Project was to have one full time Project Manager, an in-house leader with practical knowledge and experience of the manufacturing element of the company and the people who work in it. The remit was not just to run the project according to theory, but to develop realistic applications and encourage involvement from all areas of the company in order to change the fabric of the organisation, the way things are done and everyone's attitude towards safety.

The remainder of the Safety Project team was made up of 10 volunteers, individuals in leadership roles, who were keen to see improvements in safety, and who were prepared to take on a significant portion of the project in addition to their own roles.

Following an initial brainstorming session involving the project team, when ideas of all the work needed to deliver a successful, all-encompassing safety project were put on the table and grouped, it was clear that there was a natural split into 8 main Themes. Each theme could be lead by one of the Safety Project Team members. Each Theme Leader then selected a Theme Team of around 6 people, from a cross-section of the company, who in turn developed a series of Tasks that would need to be completed in order to achieve the declared output of the Theme.

Alongside the Theme and Task teamwork, the Project also ran a series of high profile Audit Campaigns that focused on specific topic area and involved Senior Managers pairing up with workplace personnel to deliver audits. The audits also served a secondary purpose, which was to demonstrate Senior management commitment through personal involvement. The results of the audits were then examined and further tasks set up to resolve any issues raised – more about these later.

INVOLVEMENT & COMMITMENT

The Safety Project Team meets on a monthly basis to share and discuss their achievements, ongoing work, forward plans and problem areas. Similarly the Theme Teams meet at least once a month, depending on the nature and number of Tasks running in each Theme at any point in time, and the Task teams meet as and when necessary to deliver the required outputs.

An early approach to setting a standard and showing commitment was a decision by the Manufacturing Director that every member of the UK operations team (about 420 people) should dedicate at least 10% of their working week to safety, whether it be on the project or other safety related activities.

Each of the Brunner Mond union Safety Representatives has paired up with a Theme Leader to assist in the completion of the tasks and to encourage more involvement from the workplace personnel.

Each Theme and Task has a remit and a 3 year plan, a time line of milestones and deliverables, illustrating when each Task within that Theme will be started and completed. These Theme plans are then fed into an overall Safety Project Plan.

The paper will now focus on each of the main Themes, the remits and aims of each Theme, the successes so far, the impact each Theme has had within the company and what is left to do.

THE THEMES

AUDITING

For any improvement process to be successful it is not only critical to know what you are trying to achieve but also to be very clear on where you are starting from, what needs to be in place to get there and to establish measures along the way that can monitor progress. Auditing plays a major role in this process and is an essential tool when it is structured and consistent, tracking progress and correcting any deviations from the agreed route.

Split into 5 tasks, the Auditing Theme reviews all existing audits, the audit procedure, those trained to audit, the audit programme/schedule and specific audit instructions. The project team itself also provides an overall audit function to demonstrate that our proposed systems and structures for managing safety are legally compliant.

Achievements to date

- A new Audit procedure has been developed and put to use when reviewing existing audits.
- An external training course to train our internal safety auditors was identified and a group of nominated people have been trained. The training also took into account Environmental and Quality system audits along with Safety audits. This reinforces the synergy between safety, quality and environmental management.
- Our Safety Regulations, which in the majority of cases already included dedicated audit formats, were split into 5 areas and prioritised with specific audit instructions reviewed and, in some cases, re-written, for around 35 regulations.
- An audit programme has been developed scheduling in those revised audits from the previous task, plus other relevant system, procedural and plant-based audits. This schedule will commence in the summer of 2004.

Impact

The work completed so far in this Theme has involved around 25 people.

Any auditable outputs from other Themes have also been built into the Audit Programme which currently includes audit requirements identified in the Site Regulations and systems audits needed to demonstrate that we are both legally compliant and meeting our own standards. Audits also play an important part in the OHSAS 18001 accreditation process and the ongoing need to show continuous improvement.

Auditing builds valuable awareness of the systems and procedures in place and we will continue to involve as many people as possible in the auditing process.

Work to do

- Work alongside the Systems Theme in order to ensure that everything that needs to be audited is included in the programme including systems, procedures, regulations, safety tours, investigations, etc.
- Monitor and progress the audit outputs. Audits only achieve their true value when the corrective action process that supports them acts on the audit recommendations and delivers the improvements.

COMMUNICATION

As with many of the organisation's operations, good, clear, frequent and interesting communications are an absolute necessity for success. The Safety Project is no exception and relies on communications to ensure and encourage involvement from as wide an audience as possible, not only our own employees but anybody who is involved or impacted by our operations.

Split into 5 tasks, the Communication Theme aims to improve safety communications throughout the company, to provide consistent, high standard safety information to every employee and to give the employees, and contractors, a route for two-way communications. The key to success is the sharing of views, ideas and improvements.

Achievements to date

- A monthly Safety Bulletin sent out in employees' pay envelopes and offered to our Contractors via the Contractor Safety Forum. This includes an update on the project, general safety information and a prize competition.
- Regular e-mail messages sent out to all network users within the company with copies to pin on workplace notice boards for non-network users. These messages include relevant safety information, reminders of rules and procedures, the monthly bulletin competition and topical safety interests.
- A new communication pack has been developed that pulls together safety statistics, safety project updates and comments on safety performance, plus a facility for the team to discuss a local safety issue in their communication briefing. This pack is distributed to all managers and team leaders responsible for holding communication sessions and includes a feedback form.
- A Safety Database has been generated and is available through the internal website (the intranet). This database displays all relevant Safety Project information including: the Bulletins, minutes of meetings, Theme and Task remits and plans, behavioural safety activities and other communication feedback.

Impact

The Project has reached every employee, plus our contractors, through the various forms of communication material now available.

The Theme has significantly improved the communication of safety throughout the company and set new standards on which a two-way process can develop.

The value of safety competitions can always be challenged but what we do know is that the number of competition entries is a reasonable indicator of whether the Bulletin is taking effect. An increasing number of entries month on month, from a wide spectrum of people, is evidence that safety communication is improving. People are reading it.

Work to do

- Create a link to the Safety Project through our external web-page. This will allow contractors and others to not only see how we are managing safety but also give them an opportunity to take an active part in it through feedback.

CONTRACTORS

Contractors provide a wide variety of activities on our sites. Apart from requiring a specific range of technical skills for their particular discipline they are required to work in various environments from plant to office based, but above all, always being required to work safely.

The objective of this theme is to ensure consistently high safety standards from contractors when working on our sites. This will be achieved by working together to deliver safety improvements, involving contractors and listening to them.

Achievements to date

- A new contractor induction DVD has been produced, featuring our own employees and contractors, that is now used for Site Inductions. A new Safety, Health & Environment Handbook has also been produced. The DVD includes a module for Visitors to our sites that is on constant display in our main reception area. All visitors are directed to this before being collected by their host or guardian.
- New TVs and DVD players have been installed across the two sites giving a wider ability to induct contractors, particularly in emergency situations, and these are also available for employee training.
- An induction process for hauliers, suppliers and other drivers entering our sites has been developed and is in use. This includes a DVD induction, after which a 'passport' is issued that needs to be produced before the driver can enter our site. A large percentage of our regular hauliers were shown the induction at their own premises.
- A laminated handout covering site safety information, a site map and illustration of mandatory PPE has been translated into 5 different languages and is given to all drivers as they enter the site, and returned as they leave. Hauliers are no longer allowed to enter the sites unless they can show they have had the appropriate level of induction.
- The vetting, tendering and contract award process has been revised with more of a focus on safety being the consistent message to all. This includes a new procedure for the engagement of new contractors on our sites.

- The Contractor Safety Forum has been improved and now involves more contractors with a much more dynamic view on safety within our sites. The forum is chaired by a contractor on a rotation basis.

Impact

All drivers now entering our sites are subject to either an induction or a 'passport' check. The new induction process has also given the gatehouse personnel more support, for example when challenging the PPE hauliers and drivers wear.

The new contractor Site Induction has been shared not only with contractors but also our own maintenance teams, some management and visitors, and newcomers to our sites.

With all of the work done on these tasks, plus an audit campaign that focused on contractors, over 70 BM people have been involved within this Theme, as well as many contractor personnel.

Work to do

- Review the use of Tools and Equipment, both contractors own and BM, by contractors.
- Develop and film induction modules for individual plants. These will be produced on DVDs and will be available to cover the plant induction elements for contractors.

CULTURE

This is, in many respects, probably the most important theme of all, since it is the culture of the organisation which will determine the long term durability and sustainability of any project. This Theme aims to examine and improve the health and safety culture within the company, in other words the way people think and behave with regard to safety. Although all the other Themes within the Project will produce step changes of culture in the right direction, we identified that there was still some work to be done that concentrated specifically on people's behaviour, perceptions and the culture they work in. It's the glue that holds it all together.

Achievements to date

- A behavioural change programme has been introduced that started with commitment from the Board and Senior Managers. This was one of the few areas where we recognised that we needed external help. Every employee attended a Safe Behaviour Workshop and a programme of safe and unsafe act observation training is being implemented. This encourages everybody to look at both the things we do well and those we get wrong. Recognition and reinforcement of good practice always has a longer lasting positive effect than reprimanding the bad. Implementation through training and practice is renewing the momentum from the workshops.
- The "HSE Climate Tool" was used to conduct a survey at the start of the project. This identified the culture in which we were operating on day 1. A 82% return rate meant that we had a sound understanding on where to focus our efforts and of people's perceptions of safety within our company. From this, further tasks were designed.

- A large number of new safety signs and safety notice boards have been replaced across the sites, thus raising the visible profile of safety and providing up-to-date safety information.
- A cartoonist supplies us with BM specific cartoons to which regular caption competitions are run through the Bulletin. The winners' captions are then transformed into posters and displayed throughout the sites.

Impact

Over 82% of all employees (400+) completed the Employee Attitude Survey which proved to be an excellent measure of people's perceptions and raised a number of key points regarding individuals' concerns with regards to safety.

The commitment shown by the Senior Managers and Board by being involved in the behavioural safety workshops is extremely valuable in supporting the delivery of the safe and unsafe acts observation programme.

Many employees have come forward and are keen to be involved in any task relating to Culture and over 20 individuals are running in specific task teams.

An increasing number of people enter captions for the poster competitions. With the winning posters being displayed across the sites this gives people more of a sense of achievement and recognition.

Work to do

- Continue to upgrade safety signs across the site and through the plants
- Continue the safe and unsafe acts observation training programme and develop the situation where this is a routine part of the employees' working lives.

RISK ASSESSMENT

Risk assessment is a cornerstone in the UK legislative structure for health and safety management. An extremely important part of the project, the Risk Assessment Theme set out to achieve a complete Risk Management culture and full compliance with legal requirements.

Achievements to date

- New Risk Assessment regulation in place.
- New Risk Assessment pro-forma trialed and in use.
- Filing and recording system and hardware in place.
- A programme of high, medium and low priority activities requiring Risk Assessment generated.
- Over 220 individuals trained in risk assessment and a group of Co-ordinators running the risk assessment implementation programme.
- Plant Hazard Data sheets generated for all areas of the plants.

Impact

The impact of the output of this Theme is far-reaching. It is a very large amount of work to conduct the number of Risk Assessments required. Many task teams have tried, in the past,

to introduce a suitable RA system and a number of different systems and various standards of RA are in place throughout the company. This Theme has managed to pull together past efforts and produce a robust and useable RA system for the long term future.

Our improved risk assessments procedures are now in regular use across the whole range of our activities and are a cornerstone of our safety management system.

Around 260 people, including contractors, have been involved in this Theme to date.

Work to do

- All activities to be risk assessed and existing risk assessments monitored, reviewed and audited.

STATE OF PLANT

As with many ageing manufacturing plants, the state of the plant tends to get blamed for many personal accidents. We believe that although the state of our plants may play a part in some incidents, it is individuals' behaviours and attitudes that lead to the accidents. However, this Theme was raised look at how we can:

- improve the state of our plants and kit to a level we can all be proud of
- gain a proactive workforce with regard to housekeeping
- create a leak-free environment
- measure production losses due to safety related issues
- put in place a credible and effective systems for dealing with safety jobs.

Achievements to date

- A running "Top Ten" safety issues across the plants that gets actioned on a monthly basis.
- A revised, auditable Safety Housekeeping schedule in place on both sites.
- A Hazard Logic Flow-Chart in place to assist in the decision-making around taking potentially unsafe plant off-line, thus creating a standard approach and understanding.
- Friday afternoon housekeeping campaigns.

Impact

Any improvement in the state of the plant has a significant impact on the people that work in the plant in the sense of ownership, pride and morale. Those areas which the 'Top Ten' has addressed are now better equipped and better looked after.

The housekeeping schedule was boosted in the first instance by a housekeeping audit campaign and secondly by "Clean-Up Campaigns" held on both sites. The Clean-Up campaigns involve every BM employee and many of our contractors, using a Friday afternoon over a period of 3 months to concentrate on cleaning up specific areas of the plant. This brought unlikely candidates out of the offices and onto the plants, many for the first time ever!

There are around 20 individuals directly involved in the Task and Theme teams' work, although many more people have been involved in its successful delivery.

Better housekeeping has enabled us to get to the root of safety issues and may well have eliminated accidents waiting to happen.

Work to do

- Work with Risk Assessment Theme to cover potentially unsafe operating procedures.
- Continue to work towards improving the public perception of our sites.
- Establish and maintain high standards of housekeeping and safety on the sites.

SYSTEMS

With other Themes concentrating on people, this Theme provides the systems that hold everything together. The Theme has put in place structured systems for managing health and safety within BM.

The overall aims of the systems theme are to ensure that the systems we have:

- comply with all relevant laws and regulations;
- are simple and user-friendly;
- are available 24 hours a day,
- are widely understood and fully accepted and used throughout BM;
- utilise up-to-date IT systems for maximum efficiency and accessibility;
- clarify roles, responsibilities and accountabilities;
- have rigorous processes for management review, change control, audit, and corrective action;
- deliver compliance with the OHSAS 18001 standard.

Achievements to date

- A revised Safety Policy is in place on both a corporate and an operations level.
- A complete review of legislation has been conducted with that legislation relevant to the company highlighted.
- A computerised Safety Management System has been developed and is in use although the final model is still under construction.
- Isolation Specifications have been re-written to a new, robust format and include new Emergency Rescue Plans.
- All Site Safety regulations have been put on-line making them more accessible and easier to up-date.
- A number of Safety Regulations have been re-written, or new ones developed, including some new procedures, in line with current legislation and outputs from other Theme work.
- The whole of the company's COSHH arrangements have been reviewed with new procedures, formats and training of nominated COSHH assessors implemented.

- A revised Incident reporting and investigation procedure has been introduced with a group of nominated “investigators” trained in structured cause analysis techniques.
- An up-dated First Aid procedure reflects a more modern approach to First Aid provision including a structured internal annual training schedule.

Impact

Improved isolation specifications are being used on the plants. The ownership of these new isolation specifications has improved due to the involvement of plant-based personnel in their development.

A method of staying in touch with changes in legislation has been established and a route for these changes made into the organisation.

A good spread of people has been involved in this Theme from the initial concepts through to the compilation of the new isolation specifications, around 30 people in total.

Work to do

- OHSAS 18001: stage 1 is booked for December with the Stage 2 accreditation visit booked for January '05.
- Complete isolation specifications and Emergency Rescue Plans across the plants.
- Continue the comparison of current Safety Regulations to legal requirements and up-dating Safety regulations accordingly.
- Establishing competence matrices for all nominated safety roles (e.g. Competent Persons, Responsible Managers, Code Engineers etc).

TRAINING

Made up of 4 tasks, this Theme covers safety training requirements throughout the organisation, from the listing of what is required, to the execution of the training to the appropriate people at the appropriate time.

It supports training activities identified throughout the duration of the Safety Project by supplying expertise on procurement, design and delivery of training identified within the tasks. We have brought safety training into the overall training fabric of the organization rather than set it aside.

Achievements to date

- Shift and Maintenance Training days now on a rolling 3 year rota, twice a year, with all mandatory and other necessary safety training delivered over this period.
- Office based safety training requirements identified and a programme of delivering the necessary training running through 2004. This will be on a 6 day/year basis with 2 different events running on each day.
- A new training standard is in force that determines the procedure to follow when deciding what training is available (internal or external), what is the best to use and how it should be delivered.

- A training matrix has been completed for all departments and roles within the organisation. This includes a Competency Matrix for Nominated Persons.

Impact

The new rota has been in place over the last 3 sets of training days and an improvement in participation is evident.

More structured and consistent training is being delivered, in a more professional package.

This Theme has also worked alongside the Haulier training, the identification of RA training and the Behavioural training schemes.

Office based staff are becoming more involved with basic safety training and showing more of an interest in their own safety.

Work to do

- Ensure that all nominated safety role holders either meet the requirements or have appropriate training plans in place.

NON-THEMED WORK

The Themes take into account most of the safety improvements to be made in the project. However, there are some occasions where a particular task or job does not fit comfortably in any particular Theme but are seen as critical to success.

In these instances, the project manager has run separate tasks to avoid necessary work falling through the gaps, and also to continue to raise the profile of safety whilst the Theme Teams were continuing to work towards their individual aims.

CAMPAIGNS

As already mentioned, a number of specific campaigns have been run in an attempt to raise individuals' safety awareness, to keep safety in the forefront of people's minds and to act as learning exercises for the Project to work with.

Generally these campaigns run for a month and can vary from a straightforward awareness push to a systematic audit run.

PPE — a zero tolerance policing regime with respect to the wearing of appropriate Light Eye Protection was in force for our first campaign. A letter to all Team Leaders from the Manufacturing Director instructed them to conduct Toolbox Talks around light eye protection. They were also required to be more vigilant in the wearing of LEP and to approach any one not wearing it. This delivered a direct increase in compliance.

A new more modern spectacle was also trialed, entered onto the stores list and made available to employees.

Housekeeping — a month long audit campaign involved 60 individual audits led by 15 managers, each conducting 4 per week, with a different second auditor each time across both sites and all plants. A significant improvement was made and this formed the basis of

the housekeeping audits and clean-up campaigns leading to increased ownership of the plants. This was revisited 2 years later and it was pleasing to record that the high standards previously achieved had been maintained.

Permit to Work — another month long audit campaign again involving 60 individual audits with a different set of 15 managers and 60 different second auditors. This campaign was extremely successful and a number of changes to our PtW system were born from these audits, including a revised PtW form, a new Locking-Off Procedure and a revised PtW Safety Regulation. This was also revisited two years later to check compliance, again, with pleasing results.

Hard Hats — There was not only a need to remind people to wear safety helmets, but to also make them aware that hard hats have a shelf life after which their effectiveness falls off. This campaign encouraged every hard hat wearer within BM to check the date on their hard hat, check the state of it and to replace if necessary. A total of 360 employee hard hats were replaced throughout the month of this awareness campaign.

Contractors — Due to an unwelcome upward trend in contractor accidents we returned to a month long audit campaign, focusing on the contractors working on our site. 60 audits using 15 managers and 60 second auditors examined how contractors worked in our plants, their compliance to our, and their own, safety systems and their knowledge of the plant in which they were working. As a result of these audits, particular attention was then paid to Risk Assessment and the increased use of appropriate Toolbox Talks.

Workplace & Work Team — included a general PPE re-visit, general housekeeping and a safety check of the work areas for hazards and safety issues. It found that less people had to be approached to conform with PPE than with the original campaign and that the standard of PPE and housekeeping had improved overall.

ACTION CALL FORWARD

A particular issue was raised out of the Audit Theme that was perceived to have much wider implications. We found a history of good ideas and proposed actions about improvement and a poor record on delivery. All audits, investigations, tours, systems, observations, risk assessments etc. tend to give rise to a number of actions that need to be dealt with. A central database for all actions has been developed so that they can all be listed, prioritised and allocated to the right person/area for execution. This electronic system ensures that no actions are lost or forgotten about, enables easy access for use and also provides a point from which individuals can track their actions, i.e. provides feedback.

This is a very important part of the safety management system.

HEALTH & SAFETY FAIR

During the 2002 European Week of Health & Safety with its special emphasis on Health Awareness and Stress, we ran a two-day Health & Safety Fair with an aim to encourage employees, contractors and visitors to take a check on their own health.

The event included a number of external exhibitors featuring a range of 6 health checks from cholesterol and weight to healthy drinking and stopping smoking, a health food stall, chiropractor, holistic therapy, a fitness club and First Aid demonstrations. The safety prevention side of the fair was covered by the Fire Brigade (including demonstrations), a safety clothing and equipment stand and road safety provided by our haulage contractors.

The attendance by far exceeded expectations and around 400 people attended over the two day period. Another Health & Safety Fair is planned for September 2004 which will also include the provision of behavioural change workshops and debate forums with an external safety icon.

TO CONCLUDE

A 3 year, in-house Safety Project was launched at the start of 2002 to update all of the different aspects of safety throughout the company and achieve a step change in safety culture and performance. In our long history since the founding of the company in 1873 we have seen many “safety initiatives” come and go. Most have provided some improvement for a period, but none has taken a holistic approach to the issues and produced a lasting and radical change. The Brunner Mond Safety Project is a new and much more powerful approach.

Now, at almost the end of the 3 year Safety Project, the safety management systems within Brunner Mond have been vastly improved with OHSAS 18001 accreditation in our sights.

Individuals’ attitude to safety and their behaviours are also changing for the better giving us that step change required to improve the safety culture on our sites. It is anticipated that the required culture change will become apparent 3–5 years after the project started. Cultural change is not a quick win but it is the way to deliver long lasting change.

Regular communications, structured campaigns and people involvement maintains the high profile of safety within the company, not only with our employees, but also with our contractors and hauliers.

The project has managed to get to the hearts and minds of every individual working on our sites, it has set the momentum in the right direction. With the continuation of safe and unsafe acts observation, the consistent use of Risk Assessment, the new isolation specifications, the new training packages, the new audit programme and the continual improvements in plant, it is fair to say that the project has delivered its objectives and has proceeded to define the shape of safety for the company for the future.