The hazards associated with paint production make it one of the most regulated industries in the world. In handling the materials used to make paint and coatings, workers may be exposed to toxic, flammable or explosive substances. Furthermore, when work is done manually there are risks related to improper lifting, slips, falls and dropping containers. Given the high incident risk, a robust safety culture and safety-centred management is crucial. However, most plants producing paints and coatings worldwide are relatively small operations and lack the resources to maintain in-house health and safety expertise.

In 2013, a leading organisation in the chemical industry acquired stake and management control in a successful, family-run Middle East plant producing decorative and performance paints and coatings. The enterprise employed 123 people at the time of the acquisition, many of them expatriate workers from India, Pakistan and the Philippines.

CASE STUDY

Safety and Success Go Hand in Hand at a Paint Manufacturer in Middle East

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<table>
<thead>
<tr>
<th>Timeframe:</th>
<th>February 2015 - July 2016</th>
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</thead>
<tbody>
<tr>
<td>Size &amp; Location:</td>
<td>Middle East</td>
</tr>
<tr>
<td>Main services:</td>
<td>Organisational Culture Diagnostic Instrument (OCDI), Behavioural Accident Prevention Process® (BAPP®)</td>
</tr>
<tr>
<td>Industry:</td>
<td>Chemicals</td>
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</tbody>
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The hazards associated with paint production make it one of the most regulated industries in the world. In handling the materials used to make paint and coatings, workers may be exposed to toxic, flammable or explosive substances. Furthermore, when work is done manually there are risks related to improper lifting, slips, falls and dropping containers.
Initial situation, requirements

Prior to 2013, the project’s target plant, was a family owned and operated business. It had achieved financial success, becoming a widely recognised regional brand, by emphasising process metrics such as productivity, adherence to specifications, cost per unit and delivery on time and in full. However, perhaps as a result of the company’s relatively small size, there were no safety professionals on site.

Shortly after the acquisition and transfer of management to the chemical organisation, the site experienced a significant incident. An explosion occurred during hot work activities on a solvent tank seriously injuring two workers involved in the task.

As a result of the incident as well as the corporate approach within the organisation, the site was directed to undertake an assessment to uncover what aspects of the culture were preventing them from seeing success in safety. An integral part of the intervention was to engage the workforce in safety improvements.

To achieve these goals, the paint manufacturer enlisted the help of DEKRA.

Solutions

We were chosen for our record of success within the organisation and industry as well as our expertise, professionalism and international experience. We began with an initial design workshop, where employees shared collectively in the creation of a vision for the organisation. Three central values emerged:

- People: Leaders are visible, take an interest in employees and their work, communicate effectively and transparently at all levels; workers are engaged, respected and fairly compensated
- Safety: All who visit or work on site go home in the same condition they arrived, which means everyone wears appropriate PPE and behaves in accordance with established procedures; equipment is installed and maintained to minimise manual handling
- Success: The organisation is recognised as the safest and most successful paint manufacturing and distribution company in the country

The next step was an organisation-wide assessment of company culture (OCDI) along with the implementation of BAPP® technology throughout the site. Despite language challenges - English, Hindi, Arabic and Urdu were all in use among the workforce - the OCDI survey had an 88% response rate and enabled our consultant to help the company identify obstacles to realising their vision. The main challenges were:

- A leadership style characterised by behaviours that undermined management credibility and a lack of transparent communication, especially regarding “the big picture”
- Human resources issues around salaries and accommodations for the expat workforce
- Aging, poorly designed facilities and equipment that led to significant manual handling and associated risk exposure

Results of OCDI assessment
In response, we compiled a set of recommendations to guide the intervention. These included implementing a communication strategy around key improvement initiatives and business strategies, as well as reviewing and revising HR policies and practices to ensure appropriate rewards and recognition. A safety leadership program was also proposed, which would focus on risk exposure and visible countermeasures and practices. We advised identifying and assessing faulty or outdated equipment as well, in order to decrease manual handling. We emphasised the importance of communication at every stage and in every area to keep all members of the organisation involved and informed about intentions and progress toward improvements.

As the project got underway, there were some bumps in the road. Selection of the project’s steering committee occurred on the same day that the Inventory of Critical Behaviours (ICB) was scheduled for development, and at least one of the individuals chosen expressed feeling unqualified to participate. The feeling may have been more widespread, because progress toward goals was slow in coming. The turning point came through the efforts of the new Operations Manager and one of the facilitators, in particular, who brought leadership and the steering committee together to start confronting the issues raised in the cultural assessment.

Language barriers continued to be a challenge, specifically during the training of the first group of BAPP® observers. However, various employees from the steering committee stepped up to help us overcome this issue, and once BAPP® observations began, most employees welcomed the opportunity to receive feedback on their behaviours. This was both encouraging and somewhat surprising, considering that receiving feedback was a new experience for everyone, and nobody had received prior coaching.

**Result**

Despite the challenges, the organisation's vision initially designed for itself, with people, safety and success as core values, took shape. Quantitative results reflected the success of efforts to improve safety performance. There were no recordable injuries for 8 months, since the project kick-off. The BAPP® Index Score, at 89%, was the second highest in their particular business unit. There was a reduction in risk exposure in 40% of critical behaviours from the ICB, and more importantly for this organisation, a reduction in all “body use” behaviours, which posed a particular challenge. This improvement is probably traceable to the introduction of engineering controls, through new or redesigned equipment that massively reduced manual handling.

The new focus on safety proved completely compatible with business success, as qualitative results showed improvements in the areas traditionally emphasised by company management. For example, the “out of specification” rate had been 6-8% prior to the intervention, but dropped to less than 1% by June 2016. Delivery “on time and in full” increased by 6 percentage points, climbing to 98% from 92%. Gains in productivity and cost per unit are reflected in increased efficiency: where once 19 employees worked in packaging, 9 now suffice to do the same work.

![Implementation Questionnaire](image-url)
People are reporting satisfaction, as well. Communication has significantly improved between leadership and the general workforce and is bringing the site together as one unit. Toolbox talks and walkarounds occur daily in the operational areas, whilst quarterly “town hall” meetings facilitated by the Operations Manager have been introduced as effective two-way forums. The intervention has also improved inter-department relationships and allows all employees to participate in safety and operational improvements. The observation process enables a broader understanding of some of the difficulties and issues that employees have been experiencing, in some cases for many years, and not necessarily only relating to safety. Finally, employees universally state that safety is significantly improving onsite, and some noted that they are now talking about safety ‘beyond the gate’ as well.

Looking ahead, the organisation began building on this progress by defining an overarching strategy incorporating observations, communication, training and more. The company began to embed the process into the QHSE management system so that investigations, Life Saving Rules (LSR), process safety management and document review processes - in short, all their newly acquired tools, become integrated elements of company culture. They can continue to train observers and analyse the resulting data to fuel further improvements, such as facilitating expenditures on equipment to eliminate manual handling.

DEKRA drew on experience, expertise and a reliable set of customisable tools to introduce and establish safety as a worthwhile, attainable goal in an organisation previously lacking a safety orientation. Not only did incidents fall to zero as a result of the intervention, but the organisation was able to successfully reenvision itself while making financial and productivity gains. DEKRA’s approach proved that safety and success are fully compatible and that challenges to safety performance improvement can be overcome.

**DEKRA Organisational Reliability**

DEKRA Organisational Reliability is a behavioural change consultancy. Working in collaboration with our clients, our approach is to influence the safety culture with the aim of ‘making a difference for the better’. We deliver the skills, methods, and motivation to change leadership attitudes, behaviours and decision-making among employees. Measurable sustainable improvement of safety outcomes is our goal. We are a service unit of DEKRA SE, a global leader in safety since 1925 with over 39,000 employees in 50 countries.