Audit and ‘Responsible Care’ in the chemical industry

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Audit is an essential element of Health and Safety Management Systems. This paper examines the Chemical Industry Association’s ‘Responsible Care’ initiative and its role in encouraging continuous improvement in the management of safety, health and the environment, within the chemical industry. The case study from Zeneca describes how the principles of audit have been incorporated into their Safety, Health and Environmental Management practices.

Key words: Audit; chemical industry; responsible care.

In the United Kingdom the Faculty of Occupational Medicine has underlined the fundamental importance of audit in Occupational Health risk management. Risk assessments should follow hazard identification. These assessments and the actions to reduce risks to health should be subject to audit to ensure that satisfactory standards are achieved, maintained and, where possible, improved upon.

In the chemical industry, as in other industry sectors, audit can be defined as a process of observing practice and comparing it against a standard. Audit processes identify and address areas requiring improvement from one of three levels. At their simplest, audits of (infra) structure focus on the tangible hardware associated with the provision of a service. Such audits often focus on resources and competence. With respect to occupational health provision, typical audit questions of structure include ‘do you have an occupational health facility?’ or ‘does your site have access to a full time occupational health practitioner?’ At a second level of detail audits of process focus on activities, assessing whether they meet a predefined standard. For example, ‘in response to risk assessments, are exposure monitoring programmes conducted, resourced and up to date, with implementation of recommendations?’ At the third level of detail, the health outcomes of those interventions are audited. For example, ‘how many potential cases of sensitization are prevented as a result of conducting a health surveillance procedure?’

The Chemical Industry Safety Health and Environment Council (CISHEC) exists within the Chemical Industries Association (CIA) to raise the standards of occupational health and safety by disseminating information on good practice. The council is composed of directors, senior managers and Professional specialists representing member companies.

Based on existing initiatives introduced in Canada (1985) and the USA (1988), the CIA, in the United Kingdom, set up its ‘Responsible Care’ programme in 1989 to improve performance of the chemical industry in the fields of safety, health, environment, product safety, distribution, emergency response and the public.

Typically, the Responsible Care programme, in the USA, sets out six codes of management practice (see Table 1) and requires participants to conduct annual audits of safety, health and environmental management procedures. The health code sets out requirements to protect and promote the health and safety of people working at or visiting member company sites by:

- identification and assessment of hazards;
- prevention of unsafe acts or conditions;
- maintaining and approving employee health and
- fostering of communication of health and safety issues.

As an audit mechanism Responsible Care focuses primarily on infrastructure, and to a lesser extent, process.

Table 1. Codes of Management Practice for Responsible Care

<table>
<thead>
<tr>
<th>Code</th>
<th>Practice</th>
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<tbody>
<tr>
<td>1.</td>
<td>Community Awareness and Emergency response</td>
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<tr>
<td>2.</td>
<td>Pollution Prevention</td>
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<td>3.</td>
<td>Process Safety</td>
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<td>4.</td>
<td>Distribution</td>
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<tr>
<td>5.</td>
<td>Employee Health and Safety</td>
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<td>6.</td>
<td>Product Stewardship</td>
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If the definition of audit requires comparison with a pre-defined standard it could be argued that Responsible Care is a closer relation to benchmarking than to true audit. Nevertheless, it aims to raise standards by encouraging continual improvements within the area of activity addressed and by encouraging intra-industry comparisons to be made.

Responsible Care also calls on its members to communicate its safety, health and environmental results to a wide range of stakeholders, from employees and local communities to regulators and the wider public. This encourages constructive dialogue about stakeholder concerns and helps promote improvements in practices. Therefore, as a development of the Responsible Care initiative, the CIA selected UK safety, health and environmental management indicators of performance in 1991. After a trial in 1993, a specific occupational health indicator of performance, entitled 'Check-Up' was added in 1994. This questionnaire provides a measure of occupational health provision, by assessing management inputs to a site's occupational health programme. 'Check-Up' covers eleven elements, each of which can be scored from (a) where no provision is made to (d) where the element has been fully implemented (Table 2). The data from these reports is published widely each year, in the document UK Indicators of Performance 2. In addition to the questionnaire, a workshop on Health Performance was held for representatives of Responsible Care cells in 1996, to address specific elements of 'Check-Up' where improvements could be made.

Within the chemical industry, the light in which quality and audit processes are seen has changed. They have matured from being seen as 'potential burdens arising out of activities creating endless paperwork,' to 'economic necessities which are good for business.' As regulatory pressures increase, safety, health and environmental regulators have become increasingly powerful. This was certainly a stimulus to take action for improvement in a bid to avoid potential threats to licences to operate. In the case of environmental management, changing taxation systems that now penalize the generators of waste have also encouraged improvement initiatives. Employers are seeing pro-active sound Safety, Health and Environment (SHE) management procedures as less expensive to comply with than the fines for non-compliance.

In the USA, the introduction of a Responsible Care programme by the US Chemical Manufacturer's Association (US CMA) followed a series of major SHE incidents in the 1980s. There had been increasing public concern, particularly regarding environmental performance of the chemical industry, after the Bhopal disaster. The industry had also become increasingly aware of its poor public perception. Responsible Care was seen as an opportunity for the industry to demonstrate a concern for improvement in public, employee and customer health and safety management. It was also seen as an opportunity to drive environmental improvements within the industry.

The fact that Responsible Care involves self-audit leading to a combined report that does not identify the participants is seen by some as a potential weakness. National Industry associations are responding to such criticism by examining the possibility of third party auditing. This would be a significant and important advance in SHE management. After all, what self-respecting company director would consider a situation where financial records were not subject to the scrutiny of an external auditor? As John Milton said, 'There is nought more likely to be prohibited than truth itself whose first appearance in our eyes, bleared and dimmed with prejudice and custom, is more unsightly and more plausible than many errors.'

Accordingly, many have sought and achieved accreditation with external auditors. Registration with Quality Assurance schemes have been linked to Safety Health and Environmental Management Systems. For many industries in the United Kingdom, accreditation with the British Standards such as BS5750 (ISO 9000) is seen as a prerequisite to do business. Accordingly Occupational Health and Safety sections within chemical companies with registration have been encouraged and sought accreditation.

Although Responsible Care programmes have now been implemented in over 40 National Industry Associations, this in itself poses additional challenges for multinational organizations. How should they address the issue of SHE improvement in manufacturing units outside the national headquarters? What action should they take where there is no Responsible Care Initiative or local industry association? There are three basic approaches: companies may adopt the 'best possible' approach, i.e., set out to raise the standards of all their operating units to those of the most advanced, or committed country or they may adopt the 'best practicable' approach, that is, to aim at reaching a set of standards taking local cultural, economic and legal requirements.
into account. They may combine the two approaches by setting challenging, but realistic standards for all units. The audit process is a vital component to drive improvement whichever approach is adopted.

Many chemical multinationals have now put in place comprehensive SHE management systems applicable throughout their international operations. For these to be successfully implemented they have within their systems a requirement to audit compliance with company standards.

Zeneca, a multinational company comprising pharmaceutical, agrochemical and speciality chemical businesses has set 19 Safety Health and Environmental standards in its SHE management system (see Figure 1). These cover a diversity of areas from SHE policies to emergency planning. Each operating unit is required to implement the company SHE policy and standards. They must develop locally written procedures, where appropriate, to ensure compliance with the standards and local legislation. Over 100 guidelines help managers to implement the standards. These include specific ‘Occupational Health Guidelines’ for local SHE managers and the occupational health professionals who work with them.

Audit is an essential part of the SHE management system. In Zeneca there are three types of audit (see Figure 2):

1. The **management audit** assesses how effectively site management implement SHE Standards. Auditors are independent of the sites being audited. The aims of the audit team are to assess whether:
   - local systems and arrangements are in place;
   - the management system is properly resourced and
   - SHE improvement plans are adequate.

2. **Operational audits** are in-depth examinations of specific procedures or activities, carried out by local staff on behalf of managers.

3. **Specialist audits** such as ‘Occupational Health and Hygiene,’ ‘fire-risk’ and ‘COSHH compliance’ are carried out by experienced SHE professionals independent of the site management. These assess how well procedures meet SHE standards and incorporate current good practice.

A further key element of the SHE management system is the requirement of each business leader to send an annual ‘letter of assurance’ (LoA). This describes how their business complies with the SHE Standards and identifies areas for improvement. The SHE Director of the main board receives LoAs from business units. This allows a comprehensive review of SHE compliance and improvement plans for the company.

The timing of the LoA is also important. LoA compilation coincides with the Annual Business Review of financial performance. This ensures that there is a strong link between the production of SHE Improvement plans for the coming year and the process of budgeting for the costs of improvement.

In any audit process a key requirement is a skilled, trained auditor. It is not sufficient to conduct a desktop review of documentation. Whatever the level of audit the auditor must be able to identify significant shortcomings which could result in undesirable health outcomes. The auditor must verify his findings by every method available to him. This includes visual inspection of a workplace, personal observation and formal interviews with employees, as well as customers, visitors and contractors, where appropriate. In this way the auditor must make certain that what is being said and written is being done.

Let us not forget that the responsibility for the prevention of all SHE-related losses lies clearly with management (occupational illness, accident or environmental
incidents). Current United Kingdom health and safety statutes define this in law.\textsuperscript{5}

The role of auditor is just another of the multi-faceted skills required by the Occupational Physician in the drive to raise the standards of health and well-being of employees in the industry, the public and those who may be affected by a business’ operations.

\textbf{NOTE}

Since this article was received, Zeneca has merged with Astra to form AstraZeneca. The information in this article is based on the policies and practices in operation within Zeneca prior to this organizational change.

\textbf{REFERENCES}