

TOWARDS A SUSTAINABLE
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19 The Chemical Industry's
Responsible Care Programme:
Lessons for the Pulp and
Paper Sector

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**THE CHEMICAL INDUSTRY'S
RESPONSIBLE CARE PROGRAMME:
LESSONS FOR THE PULP AND PAPER
SECTOR**

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THE CHEMICAL INDUSTRY'S RESPONSIBLE CARE PROGRAMME - LESSONS FOR THE PULP & PAPER SECTOR

INTRODUCTION

What is Responsible Care?

Responsible Care is a voluntary initiative of the chemical industry, under which participating companies publicly commit themselves to seek continuous improvement in their performance in all aspects of safety, health, protection of the environment, product safety, distribution, emergency response and relations with the public. Under the initiative, the company commitment is generally made by CEOs, who then are responsible for ensuring actions by their company under the initiative, and for reporting back to on progress to the national and/or regional chemical industry association running Responsible Care programmes.

As a part of Responsible Care, companies commit to educate and involve all staff and to work with customers, transporters, suppliers, distributors, and communities regarding implementation of the programme, including product use and overall operations.

Responsible Care builds upon existing practices and materials developed within many chemical associations and companies over many years. Responsible Care brings measurable achievements on which the chemical industry must communicate with the public in order to earn its place as a respected partner in society, according to CEFIC, the European Chemical Industry Council.

The programme has spread widely in OECD countries, and is now also being implemented in many developing countries, including countries of South America, China and India.

One important aspect of Responsible Care is that it is country-, and even company-, specific. It is up to each national chemical industry association to decide on the way the programmes principles are implemented in their country, and on specific priorities for attention. Each company then decides how to implement their programmes to be consistent with the framework set by its national industry association. This allows Responsible Care to focus on encouragement of performance improvement in relation to national and regional circumstances. The programme allows all companies in a country to work together, and to build Responsible Care activities as elements of wider management and good neighbour policies.

As Responsible Care spreads to new countries, national associations and participating companies are able to learn from the way the programme has been implemented elsewhere. Industry Associations and companies are then able to select elements from the way Responsible Care is structured and set up elsewhere, as well as to draw on supporting documentation, to assemble a programme that is most suited to their circumstances.

The chemicals sector as a group, has major environmental impacts and is a focus for public concern. While some issues of concern to the public are local, many are widespread, and a generic code that all parts of the industry can claim to work to is therefore of benefit to the individual companies and to the chemical sector as a whole. The value of Responsible Care in the sector is that through it, companies are able to identify significant issues, and standardise principles for management and reporting in these areas, through the development of Responsible Care guidelines.

Origins of Responsible Care Programmes

The Responsible Care initiative was first developed by the Canadian Chemical Producers' Association during the mid-1980s, in response to widespread public concern about the health, safety and environmental risks associated with the chemical industry, and recognition that the industry's

products can also do damage if misused or accidentally released. Responsible Care was taken up by the Chemical Manufacturers Association in the US in 1988, the Chemical Industries Association in the UK in 1989, and has spread widely throughout Europe. In Europe and North America, commitment to Responsible Care is a requirement for company membership of their national chemical industry associations.

Many chemical industry associations which now have Responsible Care programmes in place with high levels of participation from their members, have started to expand Responsible Care from core company activities to relationships with suppliers, third-party transportation, and other groups. They are also developing more detailed guidance to members to help with implementation of Responsible Care.

FACTORS AFFECTING IMPLEMENTATION OF RESPONSIBLE CARE - ASSESSMENTS FROM WITHIN THE CHEMICAL INDUSTRY

Since it was first developed by the Canadian Chemical Producers Association, Responsible Care has been taken up widely by associations and companies around the world. The view within the chemical industry is that the following factors have contributed to the spread of Responsible Care:

Corporate commitment combined with monitoring

Responsible Care combines the commitment of companies with a monitoring system at the level of national chemical industry associations. For comparison, while the ICC Business Charter for Sustainable Development covers similar principles and commitments to Responsible Care, it is not backed by a monitoring system, and has had little or no on-going impact within signatory companies, or in relation to perceptions of public and regulators.

By contrast, Responsible Care is widely held within the chemical industry to have led to improvements in public perception of the industry. The advice offered by CEFIC, the European Chemical Industry Council, to other sectors wishing to learn from Responsible Care, is to take the principles set out in the ICC Business Charter for Sustainable Development and define a monitoring system at national association level to track performance of participating companies.

Role of national chemical industry associations

Implementation of Responsible Care is managed by national chemical industry associations. The associations, through the participation of their members in work-groups, determine their priorities for their own Responsible Care programmes, development of guidance and of indicators of performance, which are published through the national associations.

Adaptability to sectoral and company requirements

Responsible Care is flexible in the way it can be adapted to the circumstances facing the chemicals industry or its component companies. It sets out a set of principles that represent the core of the programme, but it is up to national industry associations to agree on their priorities for implementing these principles, and then for each participating company to determine its priorities within the overall national framework. Responsible Care provides a structure, through checklists, guidance or codes, for companies to use to record their progress, and to identify gaps, based on a form of self-assessment or audit.

The flexibility of Responsible Care allows companies to work on the issues that they see as priorities, either because of the activities of the company, local circumstances, or other factors. It provides a structure within which to document management practices that, for the most part, are already established in any chemical company, but which are often poorly documented.

In the chemicals sector, Responsible Care catalysed the need for companies to do something to improve their environment, health and safety (EHS) management and deliver continuous performance improvements.

This flexibility also allows programmes to be structured to avoid duplication of other existing programmes, for example, emerging regional or international management standards, and to build on these as well as to plug any gaps. Tools like ISO 14001 and EMAS describe the type of management system necessary in relation to implementation of Responsible Care, which embraces Environment Health and Safety in an integrated manner.

'People oriented' elements

Implementation of Responsible Care requires inter-departmental, and often inter-company, dialogue, and not just technical information on hardware and performance measurement. This 'people-oriented' side brings better working relationships, generally, and contributes to maintaining the enthusiasm of companies and staff running Responsible Care programmes. In many areas, Responsible Care groups or cells have been established locally, to allow companies to exchange information and to assist each other in implementation of Responsible Care activities.

Low administrative burden

Responsible Care builds on management practices that for the most part are already widespread within many parts of the chemical industry, and encourages greater integration. Most companies committing to Responsible Care will already have documentation systems from which the performance and other information required for Responsible Care can be readily extracted. This means that there is little or no additional administrative requirement to participate in the programme. However, where documentation systems at corporate level for all aspects of management need further development and implementation, Responsible Care may require additional effort until effective management systems are fully implemented across a company.

There should be no added costs in implementing Responsible Care since it is built on existing systems. The programme has good compatibility with many other management tools and standards which all require documentation. Meeting the requirements of Responsible Care is therefore a matter of structuring the documentation so that the relevant parts can easily be pulled out and rearranged for Responsible Care purposes.

Suitability in developing countries

There are Responsible Care programmes through most of South America, in South Africa, Australia, China, India. In China and India, there has been concern that the programme may be an added administrative burden to companies, but this should be overcome as companies implement improved and better integrated management and documentation systems.

From the point-of-view of developing countries, the key value in Responsible Care is that it shows the way for companies to implement their own programmes through the practical content of guidance, etc., and sets out:

- a) the management processes that are appropriate; and

b) checklists to help companies aim for and assess continuous performance improvement.

Suitability for SMEs

The flexibility and low administrative effort mean that SMEs can readily participate in Responsible Care programme, although where SMEs have not already got proper documentation systems, effort will be needed to put these in place.

Role of major companies in introduction and spread of Responsible Care

Multi-national chemical companies have played a very important role in the spread of Responsible Care, by adopting the programme in their own plants, from where it then can spread to other companies. In the Asia/Pacific Region, major chemical companies are leading the whole effort to promote and implement Responsible Care, and are galvanising industry associations into action. These associations then operate through working groups of their members, many of which will come from major chemical companies or their subsidiaries.

One of the drivers underlying this is the corporate product stewardship initiatives which a number of multi-national chemical companies have adopted, and which focus their attention onto the way final users of their products handle them. This view down the customer side of the supply chain leads to a far more integrated approach to supply chain management and a desire to ensure that end users have systems in place to operate to the same standards as the product's producer, and also to minimise potential liabilities.

Credibility and verification

An important issue for Responsible Care is the problem of the credibility of the chemical industries to the public. The sector is approaching this problem from two related aspects:

- a) Raising its visibility and communication with the public on the performance of the chemicals sector and on its commitment to continuous improvement through Responsible Care;
- b) Credibility.

To achieve its goals, Responsible Care has to be seen to be credible by the broad public. To address this issue, CEFIC have developed a set of easy to understand indicators of performance. These indicators can link into environmental management systems and meet requirements of ISO 14001, EMAS, etc. for such management systems.

Verifiability "may be of importance in areas where there is a credibility problem" according to CEFIC, and the Chemical Manufacturers Association (CMA) in the US, and the Canadian Chemical Producers Association (CCPA) are both evaluating verification processes for implementation of the Responsible Care programme by members. The CMA route is based on ISO 14001, while the CCPA approach is a third party verification of Responsible Care Codes.

In Austria, the chemical industries' association only accepts companies as implementing Responsible Care following an independent audit which is paid for by the industry association.

Environmental Reporting

Openness is an essential element in gaining public acceptance in any industry. CEFIC have stated that environmental reporting is a "necessary element of the effective implementation of Responsible

Care", and in June 1993 adopted its "Guidelines on Environmental Reporting for the European Chemical Industry".

Responsible Care appears to have resulted in a measure of convergence of reporting by Chemical Companies, linked to the programme's guidelines and reporting requirements. This convergence can aid 'benchmarking' or comparison between reports and company performance. By contrast, in other sectors there is more fragmented coverage of issues by different companies in their reports.

However, reporting requirements under Responsible Care are not as comprehensive as other reporting initiatives.

VIEWS FROM OUTSIDE - HAS RESPONSIBLE CARE LED TO REAL PROGRESS?

While the chemicals sector is naturally up-beat in its assessment of the role that Responsible Care is playing, the critical test lies in the views of those outside the industry, and especially Regulators, the Media, and NGOs. Although there is a cautious welcome for Responsible Care amongst some in these groups, all express reservations about aspects of the programme and its implementation.

Regulators

Regulators feel that Responsible Care has been helpful in fostering attitudes within the chemicals sector that are supporting implementation of integrated environment, health and safety management systems, and increasingly to life-cycle examination of production processes, products, use and disposal, and to the use of mass-balance approaches.

Regulators emphasise the value of Responsible Care as a means of demonstrating to the public that companies in the chemical sector are committed to continuous improvement beyond compliance, as well as the value in managerial terms of opening up dialogue within and between companies over joint approaches to particular management issues, and in helping dialogue with regulators. They also take the view that Responsible Care programmes have enabled the industry to demonstrate its response to new regulations, such as the introduction of Integrated Pollution Control in the UK, or the Toxic Release Inventory in the US. Guidance issued under Responsible Care can also help companies implement management systems that meet standards such as ISO 14001, EMAS and BS7750.

Weaknesses within Responsible Care are that it does not at present encompass third-party verification, and that the indicators of performance may be used to hide poor performance by some companies within a sector, since only averages, rather than ranges, are published.

There are also general concerns about the effectiveness of voluntary agreements in general, as a mechanism for performance improvement in line with agreed targets. The Netherlands General Audit Office recently assessed the operation of 154 voluntary covenants between the Netherlands Government and companies, including 85 in the field of environmental policy, concluding that many lack clear and controllable targets, and that most are limited to declarations of intent that do not really commit industry to anything. The Audit Office recommended the incorporation of guarantees that the goals stated in the agreements will be reached, more clarity on the legal status of the agreements, and monitoring of whether agreements are implemented and the targets met.

Specialist Media & NGOs

The general view amongst the specialist media and NGOs is that Responsible Care of itself has contributed little to overall performance improvements in the chemicals sector, and that its primary role is that of improving the public perception of the chemicals sector. Performance improvements in the sector are seen as stemming from introduction of new regulations and regulatory approaches, rather than as being driven from within the industry.

Particular issues highlighted, in addition to those mentioned by regulators, are:

- the large variation in Responsible Care as adopted in different countries, and through variations in interpretation and action by different companies - this makes useful comparisons almost impossible;

- management of 'community consultation' to focus on local supporters and establishment groups, while excluding actual or potential 'critical voices';

- publication of aggregate performance figures only, makes it impossible for external groups to take up the chemical sector's "don't trust us, track us" challenge, which has been widely used in some areas when publicising Responsible Care ;

- lack of sanctions for poor Responsible Care performers.

Particular attention has focused on the reporting requirements adopted in relation to Responsible Care. Comparison of CEFIC's guidance on reporting with government reporting programmes in North America, and with the voluntary Public Environmental Reporting Initiative (PERI) set up by a group of leading US and European companies, reveals that the CEFIC guidelines perform poorly.

Reports based on the PERI Guidelines, or on government requirements in Canada, New Jersey or the USA, all perform comparably, and these four reporting systems each would enable users to obtain, at least partially, answers to questions covering the following issues:

- major sources of pollution in watershed
- proposed new plant in a community
- company's environmental performance
- actions in relation to global environmental issues, such as climate change, ozone depletion, etc.
- opportunities to sell cleaner products and production
- recycling versus source reduction

These guidelines and those of CEFIC can partially answer questions on:

- government rewriting waste legislation
- effects of water and energy conservation

None of these guidelines, nor the CEFIC guidelines, would enable questions on reduction trends in the release and use of solvents, or on products as sources of chemicals, to be answered.

Unless fuller information is available either in reports themselves, or is made accessible via named points of contact given in those reports, to enable people to answer questions of concern to them, reporting initiatives find little resonance or credibility with the public to which they are targeted, and will do little to improve the sector or company image.

A good set of guidelines, which would identify core issues, should ideally be developed as part of a consensus process, which should involve all stakeholders - ie. those people who will use reports, including government & regulators, as well as local residents.

However, while sector guidance from industry associations seeking to establish sectoral indicators of performance and monitoring may therefore not go as far as the reporting practices of sector leaders, at the same time they should be a stimulus to other companies in that sector to improve their information management and overall performance. Thus in the Chemicals Sector, companies which have established programmes of environmental reports, routinely incorporate more detail than set out in the CEFIC guidance.

SECTOR-BASED INITIATIVES IN THE PULP & PAPER INDUSTRY

Council of the European Paper Industry

The CEPI, the Council of the European Paper Industry, supports eco-management schemes and notes that 28 pulp and paper mills have already been certified to EMAS, and that about 100 will be certified by the end of 1996 across the EU.

CEPI's approach is built around three pillars:

- a) Eco-management - and its introduction into pulp and paper mills
- b) Forest certification - to certify that timber used in the industry is from sustainable and environmentally-sound sources
- c) "Producer's Responsibility" type initiatives - building on existing initiatives such as collection and recycling of paper and packaging (but without liability on the pulp and paper producers)

CEPI favour international forest certification perhaps under the umbrella of ISO, but with flexibility to take into account local conditions, and specific national or regional regulations, such as those in place in the Nordic countries. CEPI are not in full agreement with the Forest Stewardship Council approach, and are running their own seminar on Forest Certification in October 1996. CEPI "feels the need for forest certification - the market tells us this."

CEPI is currently setting up a database aggregating data at European level on environmental performance in the pulp and paper industry, and aims to encourage reporting by companies. At present CEPI has circulated a questionnaire to National Associations in Europe on common reporting elements, and is discussing ways of reporting data on a comparable basis.

Within the pulp and paper industry CEPI think that large companies are likely to take the lead, and then others within the sector will follow. CEPI is currently working to build consensus on the need for a sector-wide initiative, and BS7750/EMAS have helped prepare the ground for this. CEPI does not state any view on certification/verification, and would not encourage any particular scheme. The preference is for companies to use the various schemes, ISO, BS7750, EMAS that they identify as being appropriate for their needs.

Canadian Pulp & Paper Association

The CPPA is currently developing an Environmental Management Programme for its member companies. This programme will cover all aspects of pulp and paper production, including forest management and operations, transport of timber, pulp and paper mill operations, and transport of products. It is being designed to go beyond present regulatory requirements, and is based on continuous performance improvement. Many of the ideas are still at concept stage, and so only a general outline is possible here.

Participation in the programme will be a condition of membership of the CPPA, including participation in development of the principles of the programme, implementation, and annual reporting. The aim is to build on the ISO 14000 series, and on experience gained by the CCPA and CMA with Responsible Care in the chemicals sector. Additions made in the CPPA scheme will include an obligation to report on performance, adoption of some sector-wide indicators of performance, and some overall targets for emissions reductions via target values for indicators of performance.

The CPPA also has plans to set up a national and regional advisory boards of stakeholders from outside the pulp and paper industry, as an aid to transparency and communications. The aim is to get board members "who have something to say" and the CPPA recognises the need to involve critics of the industry if the programme is to have public credibility.

Standards and goals, targets and timeframes will be set as part of a process of consultation, in which the advisory boards will be involved once appointed. Monitoring will be undertaken by some audits, designed to give confidence in the accuracy and quality of reports submitted by member companies, and third party verification could also be considered by the CPPA.

IS THERE A ROLE FOR A SECTOR-BASED INITIATIVE IN THE PULP & PAPER INDUSTRY?

Since the chemicals sector set up Responsible Care, a number of voluntary standards, such as ISO 14000, EMAS and BS7750, have been introduced. A key question is that given the tools that are now available, what could a sector-based initiative add to the pulp and paper industry?

This is an open question, but there are several ways in which a sector-based initiative can be of benefit, and build on the new management systems tools to support and benefit its members, and improve communication with the public. These include:

- provision of guidance and support to companies wishing to implement integrated management systems that meet the requirements of the new standards;
- encouraging companies to participate in ISO, EMAS, BS7750, or other relevant schemes;
- monitoring progress within the sector;
- encouraging networking between companies within the sector, and more open communication with the public.

It is notable that there were two companies that participate in Responsible Care amongst the first five companies to be certified under EMAS. Chemicals companies have found that their use of Responsible Care places them in a strong position to participate in voluntary schemes and to obtain certification to new management standards. As corporate customers increasingly examine the environmental performance of their suppliers, and look to certification under voluntary schemes for their evidence, companies in the Pulp and Paper Sector may well find that a sector-based initiative will bring advantages individually and to the sector as a whole.

Furthermore, SMEs may find that the work required of them to achieve the requirements of the new standards, is too much to accomplish at one step. For these companies, participation in a sector-based initiative could provide a stepping-stone to achievement of certified standards, and demonstrate their commitment in the interim.

The Responsible Care programme grew up in an industry with high and visible environmental impacts, and one that is continually in the spotlight of public concern. In the chemicals sector, major corporate customers of chemical companies, with longstanding environmental programmes of their own and well-established supply chains, have looked at their suppliers to introduce their own environmental performance improvement programmes.

Like the chemicals sector, the pulp and paper sector has visibility on a number of fronts, notably forestry practices for the supply of pulping timber, use of chemicals, and recycling of post-consumer waste. These well-defined sets of issues are highly visible and subject to much public concern.

Alternative, less polluting processes are readily available for paper production, while development of recycled paper demand and production capacity is beginning to be matched by waste stream separation and recovery programmes. On the logging side, 'sustainable forestry' or forest stewardship standards and certification are in place, having been developed by consensus approaches between timber companies, timber users, and environmental organisations. As retailers seek to source timber products, including pulp and paper, from such certified sources, developing their own internal administrative procedures and purchasing policies for this, it is highly likely that they will also look at other aspects of their supply chains at the same time.

RECOMMENDATIONS FOR KEY ELEMENTS OF A SECTOR-BASED INITIATIVE IN THE PULP & PAPER INDUSTRY

A sector-based initiative in the pulp and paper industry could build on existing tools focusing in two areas:

- a) **guidance** - aiming to assist companies to minimise environmental impacts and to implement management systems able to meet ISO, EMAS, BS or similar standards, to foster the spread of best practice throughout the sector and to provide checklists for assessing priorities and implementation of effective and integrated management systems for Environment, Health and Safety, and
- b) **monitoring sector performance** - setting up national and regional indicators of performance, to provide an overall indication of sector performance and trends as an aid to
 - i) companies wishing to benchmark their own performance, and
 - ii) public credibility through release of environmental data

Any initiative in the pulp and paper sector would need to cover four broad areas:

Forestry and timber supply - providing information on the source of timber and nature of forest management. The current development of certification schemes for sustainable forest management are important, setting both criteria for forest management, and providing a basis for independent certification.

Pulp production - providing information on input, waste and output streams, including their composition (with data on chemicals and toxicity where appropriate), stock inventories, handling, management and disposal routes, energy and water use, production processes, and investment in cleaner production.

Paper product production - providing information on input, waste and output streams, including their composition (with data on chemicals and toxicity where appropriate), stock inventories, handling, management and disposal routes, energy and water use, production processes, and investment in cleaner production.

Product stewardship - providing information on reduction of actual and potential effects associated with the products, and improvements in product design and customer support, including product

labelling and access to information on source of materials (eg. timber for pulp from certified sustainably managed forests), production processes (eg. bleaching processes), handling, use and recycling; and on initiatives such as collection and recycling schemes, producer responsibility and take-back schemes, etc. that are aimed at improving the life-cycle efficiency of use of resources and overall environmental performance.

Information on resource use and waste streams in transport and distribution (mainly energy) should be provided in relation to all four areas.

Characteristics for a sector-based initiative for the Pulp and Paper Industries

Any sector-based initiative in the Pulp and Paper Sector should be developed around the following characteristics:

Method of implementation

it should **build on existing tools**, such as quality standards for management systems, ISO standards, or EMAS / BS7750 in Europe, and encourage participating companies to work towards certification under them

it should focus on **management systems** as much as on **technical matters and collection of data**

it should be based in **national industry-sector associations**, and lead by dynamic company members of those associations

it should be backed by schemes to **monitor company progress** with the initiative objectively, including some form of independent verification, and to establish and **publish sector-wide indicators of performance**, through national associations

it should provide **practical guidance** on implementation, especially in the areas of management systems and continuous improvement, and should consider setting overall **emissions reduction and performance targets**

it should focus on an **integrated approach** to environment, health and safety management

it should encompass **public environmental reporting** as a necessary element of effective implementation, including publication by participating companies of their own **site-based performance data**

it should encourage **improved communications** within participating companies at all levels, including involvement of employees; between companies in the sector, suppliers, contractors and customers; and externally with government authorities, the public and local communities

Performance measures & reporting

Performance measures are essential for effective management, allowing managers to determine on an objective basis, priorities for attention and investment, and to benchmark their company's performance against other equivalent companies, as a further aid to priority setting for continuous improvement. Ideal performance measures provide **concise and comprehensive** information on input, waste and output streams, including their composition (with data on chemicals and toxicity where appropriate) and stock inventories. Their ability to indicate **processes and practices** that are priorities for improvement provides a stimulus for cleaner production, and a measure of progress.

Performance should be based on information on individual chemicals by individual facilities (and where appropriate or possible, by individual processes), covering all releases and transfers to the environment (air, water, land), and collated periodically, so that trends can be tracked.

For data elements such as input materials, chemicals, facilities and locations, common identifiers should be used so that data can be aggregated and compared, when reported to national associations, or by users of any published information. For ease of handling, data should be structured for entry, organisation, analysis, and access through computer database management. At sector level, overall sector indicators of performance should be compiled by national associations, which should receive information from participating companies, enter it in a database, undertake checks for quality, and maintain and process data in accordance with procedures agreed by its members.

Public reporting by the sector and participating companies should include a commitment to make available disaggregated information on performance, either in published reports or from a specified point-of-contact within national associations or participating companies, as appropriate. Where aggregate information is published, ranges as well as averages should be included.