A multi-disciplinary team, critical supply chain analysis and close relationships with customers are key to Dow Corning’s plans for REACH compliance. The company is gearing up to identify potential new business opportunities as well as dealing with the substantial challenges ahead, Emma Chynoweth reports.

Dow Corning, one of the world’s leading manufacturers of silicones and polycrystalline silicon is a manufacturer, EU importer and user of chemicals. It has three goals when it comes to the EU REACH Regulation. First, it wants to ensure it is prepared for compliance; secondly, it intends to collect data and set recommendations that will minimise any disruption to the company’s businesses; and lastly, it wants to make sure it realises any market opportunities presented by the new regime.

The company began gearing up for the legislation in mid-2006 by setting up a dedicated REACH team. This is made up of nearly 20 people from across the company’s business including supply chain planning, supply chain communications, regulatory affairs, information technology, the legal department, science and technology, procurement, product units and its eco-innovations unit.

Critical period
Executive director for EHS and product stewardship Peter Cartwright says the team has worked intensively since it was established and will continue to do so during the “critical period on the implementation time line” running to the end of this year, when pre-registration closes.

He feels it is essential for people to work together from different functions in order to identify the value and opportunities in REACH. He describes Dow Corning’s network as “a cross-functional, cross-business team, designed to see the vulnerabilities and opportunities.”

For implementation of the Regulation to be successful, he says, a significant amount of information including hazard, exposure and risk data will need to be generated and exchanged with the company’s supply chain partners and with the European Chemicals Agency (ECHA).

‘A reliable REACH contacts network is vital. Having multiple contact points within a company is neither efficient nor effective’

Peter Cartwright

"REACH requires the chemical industry to have an appropriate level of knowledge of the properties of chemicals, their uses, and to manage risk through the supply chain.” Passing such information up and down the supply chain “is easy to say, but complicated to do,” he notes.

The company has around 300 suppliers and nearly 4,000 customers in Europe. It began emailing customers, distributors and suppliers in September 2007 requesting their company’s REACH specialist contact information. Establishing a reliable and efficient REACH contacts network is vital, Dr Cartwright says – having multiple contact points within a company to deal with REACH is neither efficient nor effective.

Secure exchanges of information

“Dow Corning intends to make the exchange of required information as easy and as efficient as possible. Currently we are developing a process and tools that will enable a structured, effective and secure exchange of information between customers, distributors and suppliers.” These are being designed to fit in with the outputs from several REACH
implementation projects (RIPs) that Dr Cartwright expects to be ready prior to pre-registration starting on 1 June.

REACH touches most people in the company and effective internal communication is equally important. “We operate a hub-and-spoke concept, with experts advising internal stakeholders,” he describes. A training awareness campaign has been conducted internally and is routinely updated. The company has also set up an extensive external network to ensure that it contributes to, tracks, and responds to important REACH developments. Electronic tools – intranets, extranets, the internet and email campaigns – are all used regularly for communication.

One of the most complex areas is detailing the use and exposure of products downstream. Dow Corning, like other companies, has an internal system that records marketing and sales information about the products it sells, their markets and, where known, their uses. These systems have been developed to satisfy internal company requirements and are central to the way of doing business for that company.

However, REACH introduces the need for a complex system of use and exposure categories for individual substances that the supply chain will have to get to grips with. Not only is this a completely new approach, Dr Cartwright says, but the REACH guidance covering implementation of the system has been delayed and undergone a number of changes. Furthermore, the external system will have to interface with companies’ internal systems. As a result, he says, Dow Corning is having to look at ‘innovative approaches’ to signal its REACH preparedness to customers and suppliers.

The company is already feeling tugs for REACH compliance information from its business partners. “As members of the supply chain prepare for REACH implementation, we have seen an increasing demand for information, which is accompanied by various forms and questionnaires,” he notes.

Proprietary demands
However, “Some supply chain partners are requesting specific information that, according to our assessment, is not required for compliance under REACH.” These demands may be specific to certain market sectors, or may even be of a proprietary nature. “At the present time we believe that it is premature for questionnaires and surveys. Dow Corning will ensure that all required information will be requested and be made available in good time.”

The company is gearing up to pre-register substances that it manufactures, although not all of its product portfolio will require registration. It plans to pre-register all substances for which it has the responsibility or the obligation to do so under REACH. This, Dr Cartwright notes, is vital to minimise chances of supply chain interruptions and to take

“We are using REACH as a driver for internal innovation programmes”
advantage of ‘phase-in’ status for the registration of existing chemicals provided by the Regulation.

REACH requires a critical analysis of supply chains, he says. “This disciplined approach has provided opportunities to improve efficiency, reduce costs and improve relations with many of our suppliers. It can provide good opportunities to look for more than one supplier to improve security of supply and price in certain cases.”

**Assisting suppliers**
The company is working with its suppliers to ensure that they are taking appropriate action to ensure pre-registration of substances in the materials that they supply. In some cases, it is able to assist suppliers in their preparations. In others, it is making changes to its supplier base to ensure appropriate compliance for REACH. The company is considering pre-registering some substances that are manufactured by its suppliers, but it aims to avoid having to do this for large numbers of vendor substances, even though this approach is advocated by some companies.

Nevertheless, where there is commercial sensitivity over the use of raw materials, Dow Corning does plan to register the uses of supplied raw materials directly.

Security of raw material supply is a priority for Dow Corning’s REACH team. Based on iterative dialogue with suppliers and customers, it has conducted vulnerability analyses of the company’s product lines and decided on its priorities. It has put in place plans for limited reformulation activity where this is either required or desirable.

The company plans to provide use information to its suppliers to ensure that key raw materials will be supported and registered where required. Dr Cartwright notes that this will be unnecessary for low tonnage substances – below 10 tonnes per annum – that do not meet the hazard criteria described in Annex III of the REACH Regulation.

In circumstances where the company is unable to obtain an ingredient, due to withdrawal by a supplier, Dr Cartwright says it will take whatever proactive steps are commercially feasible to reformulate or revise its products. “We shall keep our customers fully informed in these circumstances. Dow Corning will comply with the phased registration requirements between 2010 and 2018, but at this stage no-one can give a commitment that all substances will be registered,” he warns.

In turn, the company is contacting its customers to understand their uses of its products. Provided they are used safely and as intended, Dow Corning pledges to ensure those uses are registered.

“Use and exposure information are critical components in REACH. We are developing draft exposure scenarios with customers that are based on our knowledge of their use of our products. This approach provides opportunity for downstream users to refine our knowledge of their use. We have excellent relationships with most of our customers and do not see it as a major issue.”

The company has found significant IT challenges associated with REACH. It characterises the necessary IT interfaces in three ways:

- Between registrants and ECHA;
- Between supply chain partners – suppliers and customers;
- Internally within each company in order to ‘mine’ required data and to link the requirements of ECHA with supply chain data.

On the first, Dr Cartwright says the European Commission’s chemicals database software for registrants, IUCLID 5, which was made available last year, has been tested and appears fit for purpose.

The second interface is proving more intractable to deal with. He points out that Cefic is hosting a framework for its members, which it also plans to make available to non-members. A challenge will be to link disparate internal company systems with the Cefic system. “This is why it will remain a framework and not a bespoke system, since there are just too many variables in the individual company systems,” he concludes, adding: “There are a variety of other commercial offerings coming onto the market that may act to assist companies to manage the supply chain dialogue part of REACH.”

The process is further complicated by an increasing level of dialogue within the supply chain. “This is required, but it is generating information exchange that requires temporary storage and is largely without standardised format. This is a growing issue as more downstream sectors develop different REACH industry standards.”

For its internal IT systems, the company currently has comprehensive tools for all of the required data fields to support REACH. “We are working on a combination of internal IT links and with our IT framework providers as one of our top priorities,” says Dr Cartwright. “It will require significant activity and resource.”

**New business opportunities**
Despite the challenges, the company considers that REACH compliance could also potentially create new business opportunities. “We are using REACH in a positive manner, as a driver for internal innovation programmes.” To maximise the opportunities from these efforts, the company’s policy is not to disclose specifics on raw material sourcing decisions nor on reformulation efforts, in order to be able to capitalise on any competitive advantages that may be identified.

Dow Corning already has goals to eliminate certain chemicals ahead of REACH as part of its commitment to product stewardship under the chemical industry’s Responsible Care programme. It has also adopted a sustainability ethos that aims to protect human health and environment, to foster innovation and enhance competitiveness, while seeking greater transparency to the public and within the supply chain.

By having a dedicated REACH team, supported by global resources, including a database of REACH contacts and web information, the company is aiming to develop solutions aimed at meeting customers’ needs and provide a service that is better than it was before. It is contacting customers to find out about their preparations for implementing the legislation and, specifically, what support Dow Corning can provide. Support options could range from web-based seminars to access to the company’s REACH experts.

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