

THE
Environmental
Forum®

Volume 25, Number 3 • May/June 2008

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Protection Through
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Toxic Lockout

It is smart business practice for corporate managers to look beyond compliance with federal regulations — which badly lag state and foreign laws and many private sector programs — to strategically manage business risks from hazardous chemicals in the products they make and sell

Richard A. Liroff

Lead in toys, jewelry, and cosmetics, an anti-freeze ingredient in toothpaste, and an industrial chemical in pet foods — these and other recent controversies have highlighted the sad state of regulation of toxic chemicals in products. Leadership is being exercised more by states and public interest organizations than by federal agencies. For example, vinyl bibs were withdrawn from Wal-Mart stores in an agreement with the attorneys general of New York and Illinois, following tests by the California advocacy group Center for Environmental Health that showed elevated lead levels. Collaborative work by the center and state attorneys general the previous year led to the withdrawal of lead-laced polyvinyl chloride lunchboxes.

Federal laws and regulations, and their enforcement, constitute a Potemkin village — a false front suggesting that the U.S. government is effectively protecting public health and the environment. The federal regulatory system, including staffing and budgets, is grossly deficient and has been for many years. Even though this situation has become acute recently, it was signaled as early as 1989, when the Environmental Protection Agency was overruled by the courts in its effort to ban asbestos products. In the late 1990s, Environmental Defense Fund research, subsequently confirmed by the agency and industry, revealed enormous deficiencies in knowledge about the highest-volume chemicals in commerce. In 1996, Congress told EPA to establish a

screening and testing program for hormone-disrupting chemicals, but the agency's programs to carry out that mandate have been underfunded and it still is far from clear when a robust program will begun.

This state of affairs is not limited to EPA. Last year, in a report titled *FDA Science and Mission at Risk*, the Food and Drug Administration's Science Advisory Board said that the agency is so underfunded and understaffed as to put American consumers at risk. The Consumer Product Safety Commission has also been underfunded and understaffed for so long that congressional expressions of dismay about the commission bring to mind the famous scene in *Casablanca* when Captain Renault says he is "shocked, shocked" to find gambling in Rick's Café.

Hazardous chemicals and products containing them thus keep their place in supply chains and on store shelves because the federal government lacks sufficient authority, financial resources, and, especially in recent years, the interest and willpower essential to remove them. States are stepping forward to fill the void, locking toxic chemicals and products out of their markets. Retailers and consumer product companies similarly are filling in, and locking out. There are multiple excellent business reasons for their doing so, not the least of which is avoiding the reputational damage associated with making or selling products tainted by chemical controversy.

The recent history of brominated flame retardants attests to the importance of state leadership. Back in 2003, the European Union outlawed two forms of brominated flame retardant, followed shortly thereafter by the state of California. In striking contrast, an EPA official told the *Wall Street Journal* that more research would be needed before national regulatory action could be taken.



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California is clearly the leader among the states, inspired by numerous regulatory developments in Europe over the last several years. California has adopted so many of Europe's chemical regulations that it's been jokingly suggested that it should consider becoming the EU's 28th nation. In addition to brominated flame retardants, California has adopted new laws on toxic chemicals in electronics goods, cosmetics safety, and phthalates in toys. A senior marketing vice president for a major retailer commented on this pattern at a meeting with shareholders who had filed a resolution on product safety: "We look over there in Europe because what happens in Europe comes over to the States. We look at California and the East Coast because that's what's going to shape the marketplace for us."

Indeed, California's not alone. Similar initiatives have been launched in Maine, Massachusetts, New York, and Washington, among others. Last December, Maine Governor John Baldacci announced he will incorporate into his 2008 legislative package some of the recommendations of a task force on reducing toxic chemicals in consumer products. He can select from recommendations including publication of a list of chemicals of high and moderate concern requiring dis-

closure and restricting chemicals in consumer goods when safer alternatives are available and affordable.

The recommendations from the Maine task force adopt concepts from the newly established EU regimen for chemicals management. REACH will require companies to provide unprecedented amounts of toxicological information about chemicals and requires both authorization for sale and an analysis of less toxic alternatives for "substances of very high concern" — carcinogens, mutagens, reproductive toxicants, and persistent, bioaccumulative toxicants. Investment analysts believe that REACH's greatest impact on the chemical industry will be at small to medium-size companies. For firms managing supply chains, the most noteworthy and potentially worrisome near-term component of REACH is the publication in mid-2009 of chemicals whose characteristics make them substances of very high concern for potential sub-

stitution. Regardless of how quickly EU regulators act on the list, there will be a tremendous incentive for socially responsible retailers and other consumer-sensitive companies to get ahead of the curve and to ask their suppliers to eliminate these chemicals.

Companies Step Up to the Plate

B2B (business to business) initiatives complement those from the states in locking out products from the marketplace. Wal-Mart's sustainability policies, including its precautionary preferred substances policy, have drawn considerable attention. Wal-Mart and other companies are increasingly adopting safer chemicals policies — a commitment to continual reduction and elimination of toxic chemicals to reduce costs and lower reputational risk, and to avoid toxic lock-out. The main themes woven through these policies include precaution, innovation, going beyond compliance, and doing all these things while serving customer wants and needs. Examples can be found at a mix of U.K. and U.S. retailers and manufacturers, including such household names as Wal-Mart, Dell, and Nike in

the United States and The Body Shop (now owned by L'Oreal) and Boots (now taken private by the private equity firm Kohlberg, Kravis, Roberts) in Europe.

Wal-Mart has established a goal of providing its customers with "affordable and effective products in which all chemicals are evaluated for potential health and environmental impacts delivered in the most efficient and effective way." This summary goal is backed up by a longer policy statement signaling that Wal-Mart will take precautionary action against toxicants that cause cancer, build up in the environment, and have other undesirable characteristics. Wal-Mart explicitly embraces a precautionary approach, stating that "when we suspect that an ingredient in a product or the product itself is capable of causing harm to hu-



man health and the environment, we will act to find better alternatives." Wal-Mart is in the process of developing a screening tool for chemicals to spur innovation by helping buyers and suppliers identify and reduce potential hazards.

Wal-Mart has already told its computer and television suppliers that it expects them to meet the standards of the European Union's Reduction of Hazardous Substances directive. It also targeted three chemicals for phase-out. It has recently published a "packaging scorecard" whose objective is to favor packing materials having a smaller environmental footprint. And by becoming one of the world's largest purchasers of organic cotton, which avoids the pesticides traditionally used in growing this fiber, it has succeeded in selling organic cotton-based children's clothing at prices competitive with conventional cotton goods.

Dell's corporate policy echoes Wal-Mart's cautious approach: "To act responsibly, Dell believes that if reasonable scientific grounds indicate a substance (or group of substances) could pose significant environmental or human health risks, even if the full extent of harm has not yet been definitively established, pre-

cautionary measures should be taken to avoid use of the substance(s) in products unless there is convincing evidence that the risks are small and are outweighed by the benefits." Dell, like other electronics manufacturers, must deal with a witch's brew of heavy metals and toxic flame retardants in computer boxes, displays, and peripheral equipment. The inappropriate disposal of waste electronics has exposed people overseas to toxic chemicals and, where the lead harvested from overseas waste ends up in lead-laden jewelry sold in the United States, the lead life cycle truly becomes a circle of poison.

The health care sector, responsible for 16 percent of U.S. gross domestic product, is a hotbed of safer chemical initiatives, observing the medical profession's precept of "first, do no harm." Consorta is a group purchasing organization representing 60 percent of all the Catholic health care systems in the United States. It has just launched *Evergreen* magazine, captioned "the magazine for healthcare environmentally preferred purchasing." Focusing on such substances as mercury, flame retardants, phthalates and pesticides, the journal will go to at least 50,000 healthcare managers.

Companies Share and Collaborate

Companies are exploring new collaborative mechanisms to address chemical challenges. The electronics industry has been under pressure for years to clean up its chemical practices. In addition to individual actions like Dell's, it has a high level of responsive multi-company collaborations. For example, the Joint Industry Guide for Electronics Products, developed by trade associations, provides a standardized list of materials that suppliers must disclose to equipment manufacturers to whom they are supplying components. One striking example of the lengths to which cooperation and information exchange can go was the invited presence of several Hewlett-Packard sustainability managers at a recent sustainability stakeholder meeting convened by arch-rival Dell.

Companies are also sharing the intellectual capital they've invested in home-grown safer chemicals and sustainability policies and processes. For example, SC Johnson and Son developed its patented Greenlist process for systematically reviewing and reducing the toxicity of its products. Greenlist is a simple 0-3 scoring system (where 0 rated materials are used on a very restricted basis and 3 rated materials are judged best). Scores are based on both human and environmental toxicity criteria. SC Johnson strives to raise the scores of its products through continual improvement. For example, Blue Windex was reformulated and, in the process of eliminating undesirable chemicals, its ef-

fectiveness was increased 30 percent, leading to growth in sales and market share. SC Johnson makes the system available in collaboration with Five Winds International, a sustainability consulting firm.

Companies are also forging important collaborative linkages with non-governmental organizations concerned about safer chemicals policies, yet another reminder of the value of stakeholder engagement. For example, there is increasingly close technical cooperation between advocate Health Care Without Harm on the one hand and health care leaders such as Consorta and Kaiser-Permanente on the other. Likewise, the Lowell Center for Sustainable Production at the University of Massachusetts Lowell campus has created a Green Chemistry and Commerce Council composed of corporate leaders from multiple sectors and environmental health NGOs, all engaged in sharing innovations and generating useful tools. Yet another example is the Campaign for Safe Cosmetics, which works with the more than 750 corporate signatories to its Compact for Safe Cosmetics on useful tools to speed the elimination of carcinogens, mutagens, reproductive toxicants, and other chemicals of concern from cosmetics. Finally, Clean Production Action has produced "The Green Screen for Safer Chemicals" that it has shared with companies, including Wal-Mart, as a tool for screening chemicals.

Anticipating Lockout

So what's a corporate strategic planner to do? Forget about sales to Wal-Mart? Write off California? Ignore the EU? There's certainly a temptation to just hunker down and defend one's products, ek-ing out additional sales till the curtain falls. All too many companies do this, drawing support from their trade associations and consulting firms specializing in product defense. They may hit quarterly sales targets, but in

Greenest Firms Will Thrive

The central assertion behind the theory of evolution is that it is not necessarily the strongest that survive, but the ones most responsive to change. Darwin's logic contains important parallels for business that firms of all sizes will need to mimic to stay ahead of the environmental regulatory curve.

First, companies that wish to survive and grow need to adopt a lifecycle approach as a fundamental component of their green program. This means that firms must adapt to circumstances by building the environment into every stage of a product's evolution — from research, development, and design, to manufacturing and operations, to customer use and recycling. What's environmentally sound for the design of the product may not be the case during the recycling process, so it's important to establish firm, transparent, and well thought out processes that will look at the full range of a product's impact. Regardless of internal and external pressures facing an organization, it's smart to take a holistic approach rather than a piecemeal one.

Adaptive environmental strategies also need a precautionary chemical use policy. A 2006 report by the non-profit group Clean Production Action profiled six leading companies — Avalon Natural Products, Dell, H&M, Herman Miller, Interface, and Kaiser Permanente — singling out internal hazard assessments, green engineering principles, and supply chain collaboration as steps every company should embrace. Firms should take steps to control "substance characteristics of concern" rather than just

taking a chemical du jour approach and follow through with plans to systematically eliminate them in a scientifically reasonable and economically viable manner.

Companies should also establish long-term goals that consider the ever-changing regulatory landscape. A recent example of a regional-turned-global regulatory directive is the European Union's Restriction of the Use of Certain Hazardous Substances policy, which went into effect in 2006. Companies that chose to get ahead of similar directives in California, China, Japan, and Korea benefited from lessons learned during compliance with RoHS.

Firms must challenge their supply chains and competitors to embrace the lifecycle approach. A 2007 IDC Survey shows that approximately four out of five executives say that green information technology is growing in importance for their organization, a trend seen throughout other industries. Imagine what would happen if every company, regardless of industry, committed to working with its suppliers and partners to develop green products and services. Not only would this address climate change and other environmental concerns, but it would lead to progress and collaboration on other fronts.

More than a century after Darwin, we have an opportunity to redefine how companies approach and adapt to our ever-changing business environment, a competition in which only the greenest firms will thrive and survive.



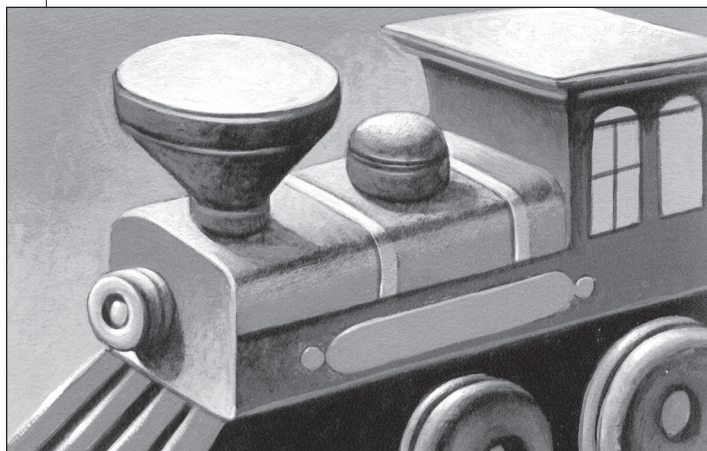
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the long run this is not conducive to building shareholder value.

Here's an initial list of steps companies can take, although they're not necessarily easy and this small number is far from exhaustive.

First, a company needs to systematically gather information from its suppliers on the toxic chemicals



in its supply chain. This is what Sony did beginning in 2001, when it was banned from selling PlayStations in the Netherlands during the holiday season because cadmium had been discovered in some connecting cables. Getting chemical information can be quite difficult where supply chains are quite extended and local regulations and political cultures are not supportive of disclosure.

Second, companies should establish suitable goals and metrics for toxicity reduction to ensure success in potentially turbulent chemicals markets. This can be done by establishing screening and scoring systems, and by creating restricted substances lists that are communicated to suppliers and the public.

Third, companies must figure out the methods most appropriate to their corporate cultures to mobilize internal resources and provide incentives for innovations directed at reducing product toxicity. For example, Greenlist is a core strategy for SC Johnson, employees are introduced to it in their earliest training, and part of employee compensation is linked to raising Greenlist scores.

Fourth, companies should develop strong chemical foresight mechanisms where appropriate — akin to the foresight mechanisms insurance companies have evolved to flag emerging risks. Past a certain point, issues shift from debates over science to market closures by regulation or corporate action, as companies and consumers increasingly recognize that definitive scientific answers on toxic hazards are more the exception than the rule. As early as 2005,

Whole Foods Market hired consultants to explore issues around hormone disrupting chemicals in its products. When a shareholder resolution raised this issue and highlighted concerns about Bisphenol-A in polycarbonate baby bottles, Whole Foods moved from investigation to action, pulled the bottles from its shelves, and began selling alternatives. Bisphenol-A has been gaining an increasingly high public profile since then, and the business of BPA-free bottles has been booming. In news coverage of the controversy, journalists point to Whole Foods as having acted on the issue two years ago, underscoring the reputational benefits to be gained by being first to market with safer alternatives.

Finally, because the safer chemicals journey can be such a complex and intimidating process, companies should aggressively explore opportunities to partner with companies within and outside their businesses, and with those NGOs that have developed strong technical competencies, to speed their way. An outstanding model for this is Wal-Mart's Sustainable Value Networks. These focus not only on chemicals, but on a host of other sustainability issues such as packaging, food, and agriculture. The networks draw on the expertise of Wal-Mart's suppliers and NGOs. The template for the networks was provided by consultant Chris Laszlo in his 2003 book *The Sustainable Company: How to Create Lasting Value through Social and Environmental Performance*. Wal-Mart's experience and that of other companies is described in the 2008 successor volume, *Sustainable Value: How the World's Leading Companies are Doing Well by Doing Good*.

Bringing the Case to Managers

Investors have been bringing the business case for safer chemicals policy to senior levels of corporate management through the Investor Environmental Health Network, which I direct.

IEHN is a collaboration of organizations, managing more than \$41 billion in assets, who promote action through their inquiries to corporate management and resolutions on proxy ballots. Investors are concerned that companies face toxic lockouts, reputational damage, and litigation, all to the detriment of long-term shareholder value. IEHN frequently serves as a resource for companies seeking to address these issues, providing case studies, strategic suggestions, and compilations of corporate policies at its website — www.iehn.org — and identifying expertise available in the NGO community.

RC2's experience with recalls of its lead-tainted Thomas the Tank Engine toys vividly underscores risks to shareholder value. In June 2007, RC2 re-

called 1.5 million toys manufactured between January 2005 and June 2007. It estimated the cost of the recall would be \$3–4 million, including costs to defend class action lawsuits. RC2 initiated a second recall later in the year, reported a quarterly earnings drop of 44 percent, and raised estimated recall costs to \$13–14 million. The price of shares of its stock declined from above \$40 prior to the recall to below \$30 in November 2007. By February 2008, when RC2 announced its full-year financial results, recall costs totaled \$17.6 million and, in response to recall costs, rising production costs in China, and slumping sales, the stock traded below \$20 per share.

Stock prices don't always reflect financial damage, but the business hit can be quantified in other ways. For example, Procter & Gamble ran into controversy in China over allegations of a tainted personal care product. P&G doesn't seem to have done anything wrong, but its product was temporarily withdrawn from the Chinese market. It subsequently reported that it lost a full percentage point off growth — 5 percent instead of 6 percent — in its beauty business because of the withdrawal.

In the 1970s, strong federal environmental laws were enacted in the United States and the Environmental Protection Agency and Consumer Product Safety Commission were established in large part to overcome concern that states were not up to the challenge of regulating pollution and other chemical hazards. In consequence, corporate environmental programs have historically focused heavily on federal compliance and on compliance with state programs delegated by the federal government. But it is becoming increasingly clear that a company having primarily a federal compliance mindset will be ill-prepared for toxic lockouts of products from various marketplaces because of state regulations and other companies' environmentally preferable purchasing programs. •

Confront or Collaborate?

A toxic lockout is a bright clear line with one side labeled good, one side bad. In resolving environmental problems, I sometimes find we automatically line up positioned for or against, signs and brushes in hand, ready to paint our placards. Sometimes, you need to.

When possible, I'd rather pursue a healthier, safer planet through multi-stakeholder collaboration. Take the energy needed to ban something — arguing pro and con, lobbying and cajoling, threats of lawsuits focused on staying static — and refocus it on brainstorming, best science, and breakthrough innovations that move society forward.

One of the problems with locking something out is that we often haven't reckoned fully what we're locking in. We stop the known to find it replaced by the new unknown. Unintended consequences can move us from the proverbial frying pan into the fire.

This is not risk versus hazard. We can't wait until we see five legged critters to admit an exposure problem. Nor should we draw a red "X" prematurely across a possible solution. Collaboration gives us space for reasoned judgment, reconsideration, continuous improvement, an impetus to innovate, and comprehensive, balanced solutions. Two examples from my world:

Environmental Defense Fund's Corporate Partnerships Program is one of multiple stakeholders involved with Wal-Mart on sustainability. Wal-Mart initially planned to address "chemicals of concern" through a toxic lockout-style list of roughly two dozen chemicals to be targeted for replacement in products. An inadvertent sort of chemicals roulette, the listing stopped after

designating the first three substances. With cross-sectoral participation, Wal-Mart is now developing an alternatives assessment screening tool. The tool will enable Wal-Mart buyers and vendors to compare product chemistry as one of multiple attributes and foster informed discussions on options. Weighting factors will raise the bar over time.

Another toxic lockout candidate is nanotechnology — the design and manipulation of materials at the atomic and molecular scale. Environ-



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mental Defense Fund sees great potential in nanotechnology, for energy efficiency, cleaner energy production, water treatment, and environmental remediation, among other uses. We also acknowledge nanotechnology may pose

significant human and environmental health risks. Partnering with DuPont, we developed a comprehensive framework to help identify, manage, and reduce potential risks of nanoscale materials across their lifecycle. We also advocate increased risk research, improved regulatory policy, and corporate standards of care.

In light of significant proven harm, a toxic lockout can be the right step; strong purchasing policies can drive environmentally preferable behavior. But collaboration in addition to the lockout — to help develop alternatives, for example — would be even better. Collaborations take time, but people collaborate because they see benefit in the anticipated outcome. Benefiting someone you see as your adversary can create discomfort. But given the choice, I'll start with collaboration.

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