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Ask the Experts

by Steve Rice & Richard MacLean

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What is a formal environmental management system?

Also this month:

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What is a formal environmental management system?

Steve: Most people believe that a formal environmental management system (EMS) is only one that meets specified international standards and is verified by an external examiner that has been certified to do so by a certification organization. ISO 14001, the Eco-management and Audit Scheme (EMAS), and the more recent SA8000 social management system are often cited as examples.

I disagree. EMSs can be 'formal' without necessarily being one of these most visible ones. ANY company, government, community or industry can have a formal EMS so long as it a) establishes a desired direction, b) develops and documents its plans, c) implements a defined set of system elements, d) monitors progress and e) adopts improvements -- the classic Plan, Do, Check, Act quality management cycle. Several companies that I've worked with have very formalized EMSs that are either only based on the standards listed above or are internally developed in their entirety. Some of these are better than the 'one size fits all' standards because they are geared toward the exact organizational structure, culture and objectives of the companies that developed them.

One big advantage of internally-developed formal EMSs is that they often also include performance objectives and 'dashboard' measurement tools. This overcomes what Richard and I have indicated frequently are the greatest weaknesses of most standardized EMSs:

1. They are process-oriented, not performance-oriented
2. They are expensive to establish and maintain
3. They consume extensive internal personnel resources that could be devoted to higher value, higher importance issues

Some of the best EMSs are hybrids that include the most applicable elements of the standardized EMSs with customized internal elements which address relevant organizational, cultural and operational issues, while focusing on what's important. These EMSs emphasize building a culture of excellence in both process AND performance rather than merely demonstrating the ability to a complete a checklist. The American Chemistry Council may be on the right path by developing a dual-track Responsible Care Management System (RCMS) that allows conformance with either an RC14001 system, modeled on ISO14001 or a modified industry-specific RCMS program. Companies are allowed to pick one, the other or a combination of the two depending on their respective company and facility needs.

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How might EH&S departments be organized in the future?

Richard: I have written extensively on this subject, the latest being Corporate Environmental Organizations: Evolving Business Management Strategies published in the September 2003 issue of Corporate Environmental Strategy. When EH&S professionals write or speak on this subject, they typically describe how EH&S organizations *should* be structured, rather than how they may be structured in the future. For example, the move towards greater outsourcing of EH&S functions and the formation of EH&S shared service departments was not driven by EH&S professionals. It was driven by business executives who were interested in cutting the cost of all service-type activities. In other words, EH&S departments became swept up in a larger business reorganization.

The next reorganization trend to keep an eye on is business-process outsourcing (BPO). Companies in the technology business are broadening their portfolio of offerings by taking over the entire human resources (HR) functions for companies, not just computer services. The most recent, high profile example was IBM's 10-year contract to take over the HR functions for Procter & Gamble. With EH&S functions becoming more systematized, executive management may think that these functions can be directly turned over to a BPO service company. Management may view this as being particularly attractive if the service provider has deep pockets and offers some form of liability protection.

This second wave of EH&S outsourcing has not yet happened, probably because the major service providers are focused on much larger and more profitable contracts, namely those for information technology and HR. Recognize that BPO has not caught on widely; it's only now emerging. If it does take off like shared services did during the 1990s and if a number of the majors eventually offer EH&S packaged services, it could radically change the EH&S organizational landscape for some companies. Just as there would remain internal vice presidents of HR for various governance, communication and administrative reasons, there may still be a senior internal EH&S person, but without an internal staff.

Should BPO be applied to EH&S? Absolutely, just as the elements of outsourcing and shared services can be effectively applied today. But it must be done very selectively for specific service areas. EH&S organizations are still recovering from poorly executed, top-down applications of outsourcing and shared services. EH&S managers should get out in front of BPO and make positive recommendations with respect to where and when it may be appropriate.

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What's the difference between climate change and global warming?

Steve: These phrases are often, and incorrectly, used interchangeably. Global warming is the result of a variety of factors that produces a rise in the ocean, surface and upper atmospheric temperatures. These rises can occur at one level and not the other, and in one region but not the other. That's what is making the scientific assessment regarding the extent of the recent warming trend so difficult to pin down.

Climate change, on the other hand, is the result of a variety of factors that include global warming -- or cooling.

As Dick and I have mentioned from time to time, we should all be aware of, and prepared for, the Law of Unintended Consequences. This cousin of Murphy's Law sets forth the premise that while we introduce changes to produce certain outcomes, there is always the probability that other, unintended consequences will also occur. The introduction of kudzu to the southeastern U.S. to control soil erosion is a perfect example, as was the invention of TNT (increased weaponry) and email (spam and viruses).

The challenge (e.g. opportunity) for businesses is both a) how to manage the risk of climate change (not global warming) to their business portfolio and b) how to meet emerging and future needs created by such change. Examples might include:

- The development of crops that have increased tolerance to both drought and increased moisture
- The installation of new utility equipment at higher elevations
- New building materials and designs with higher wind resistant ratings
- Pulp/paper trees with broader disease resistance
- Alternative raw material sources and flexibility

The key is flexibility and variability since we don't know the type or direction of the impact that the current and apparent future climate change trend will have on any particular region.

While many are putting time and effort into stopping or reversing climate change, which I believe may be futile under the current set of circumstances, businesses that can incorporate flexibility and variability into their operations, facilities and products will be able to 'weather the storm' and have successful products for future markets.

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Can you provide more real examples of how EH&S staffs can add business value?

Steve: As I noted back in August, most real, effective examples do not get published since they provide quantifiable and often substantive competitive advantage. Here are two more recent examples, albeit specific company names are omitted:

- The EH&S staff at a pharmaceutical company developed a performance data collection, management and presentation 'dashboard' that is tied into the company's existing managerial accounting database. This allows performance reporting to be based on the company's business unit and site organizational structure; the system automatically adjusts performance measures to any changes in the company's organizational structure. Because of the system's adaptability and reporting capability, other company units and groups are starting to use the system for their performance measurement and reporting.
- The EH&S staff at a chemical company worked with a customer to shift the delivery of important, though high-hazard, raw materials from drums to truck delivery. Drum delivery had the potential for significant personnel exposure and spill hazard risks. The supplier's EH&S staff provided the expertise that allowed the customer to activate unused onsite tanks, build a closed delivery manifold system and get it permitted. In addition to reducing risks and cost, the supplier company has increased sales and secured a long-term customer.

  Regretfully, I am not allowed to provide specific company names or specific measures of the business value added.

Overall, I believe that EH&S departments' capability to provide real, substantial business value has hardly begun to reach its full potential. There is a variety of reasons for this, which I'll present in next month's column.

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What are some of the do's and don'ts for partnering with environmental organizations?

Richard: Historically, companies have been extremely wary of dealing directly with environmental non government organizations (NGOs). A turning point may have been the McDonalds – Environmental Defense Fund (now Environmental Defense) 1989 agreement that completely turned around a tough public relations issue over packaging waste. Companies began to recognize that environmental groups are not a monolith -- all wild-eyed crazies that should be avoided. I recall with amusement an article in the early 1990s scoring NGOs by flaming bomb symbols. Earth First! and Greenpeace had five each (the maximum score) and the National Audubon Society and the Nature Conservancy had zero.

Agreements between industry and environmental NGOs are commonplace today. SustainAbility recently released a report on the changing role of NGOs in today's environmental debate, "The 21st Century NGO – in the Market for Change." Even Greenpeace is getting into the act with its 2002 Earth Summit accord with industry. Reuters News Service reported, "Despite that reservation, both sides said the fact that they were making a joint statement at all was remarkable." Home Depot made headlines with their agreement with Forest Stewardship Council. The mining industry recently embraced the concept of third party mining certification in the report "Finding the Way Forward." On and on it goes.

One should not assume that all is now risk free. For example, Friends of the Earth strongly praised Shell eight years ago for being more committed to sustainable development and five years ago for pulling out of the Global Climate Coalition lobby group. Recently, it issued a report, "Failing the Challenge", lambasting Shell for what they claim to be its failure at the plant level to maintain a sustainable, socially responsible environment. So what went wrong?

There are some key Do's and Don'ts. Yes, consider partnerships and agreements with environmental NGOs. Business management is more comfortable than ever with such arrangements; the barriers have been lowered by the many successful precedents. But do not loosely structure these deals. From the start, establish very specific, precise limitations on what the parties to the agreement are willing to do or not do. These deals can turn ugly if misunderstandings crop up over original intentions or expectations. You will never be able to anticipate everything in advance; a continuing dialog is essential. The individuals involved can change with time, so the more that is put in writing, the better.

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What measures have been taken to ensure that industrial wastes and sewage

discharges do not result in adverse water quality impacts?

Steve: Most industrial wastes and sewage are not allowed to be discharged into waterways, especially if they are sources of drinking water. Wastewater discharges are regulated by federal and/or state Pollution Discharge Elimination System permits, which have daily, weekly and/or quarterly monitoring and reporting requirements. Because permit violations typically carry fines of $25,000 per day per event per day, fines have the potential to be millions of dollars. Typically, though, full fine amounts are assessed only when criminal intent can be established.

Frank Friedman, of Frank B. Friedman & Associates, LLC, offers the following advice, “Data management systems should monitor discharge and reporting requirements, with some form of automatic follow-up. These are easy violations for agencies to detect and assess fines since they often involve paperwork violations that are easily proven."

Lisa Murtha Bromberg, with the law firm Porzio, Bromberg & Newman, P.C., adds "It is evident that some states, like New Jersey, are very serious about violations of the effluent limitations set forth in discharge permits, in some instances imposing mandatory penalties."

The most difficult issues that I hear being discussed include:

- Area and indirect sources such as farmlands, commercial property and residential housing can be significant sources of nutrients and oil/grease. These are diverse and still largely unregulated sources; only storm water discharge regulations are in place for certain commercial properties. Such indirect sources are becoming increasingly important as more regions are being managed from a watershed perspective instead of by a point-by-point source basis.
- State regulators sometimes presume that unattainable discharge limits will ‘force’ technology to ever-decreasing detection limits. While few will argue that discharges of incidental PCBs, mercury and other metals should be controlled or eliminated, having a discharge limit that is orders of magnitude lower than the technical detection limit serves no one well. Dischargers are often in technical non-compliance and the receiving water doesn’t become any cleaner.
- File reviews that we’ve conducted have revealed that industrial facilities are increasingly ‘forgetting’ to send in their Discharge Monitoring Reports – typically because the person responsible for them is no longer employed at the site and there is no system (or person) in place to conduct that task.
- The pharmaceutical industry is still working on the issue of trace levels of pharmaceuticals in public waterways, or PIE (Pharmaceuticals in the Environment). Additional information can be found online at http://www.phrma.org/mediaroom/press/releases/13.03.2002.366.cfm and http://www.epa.gov/nerlesd1/chemistry/pharma/index.htm.

Overall, I feel that many people in industry, communities and public groups do their best to address water quality issues. It’s just that they often disagree with each other as to what is, or is not, the most important and relevant issues to address.

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Postscripts: The University of Hard Knocks. In our October 2002 column we noted the introduction of Mutual.com’s Vice Fund (symbol VICEX) as a counter to the socially responsible investment funds. The March 2003 column reported on how the fund wasn’t turning out to be an investment nirvana, though there hadn’t been enough time to make a decisive assessment. Now that the fund has been out a full year, we thought it might be a good time to check in on the fund and update you on its progress.

While over the past year the NASDAQ index has risen over 40% and the Dow Jones Industrial Average has risen close to 20%, VICEX has remained a laggard, rising less than 10% over the past 12 months. It now has enough of a performance history to record a beta measure of around 0.9. This indicates that the fund is slightly less volatile than the overall market.

The bottom line, nevertheless, is that it appears that VICEX’s fund managers, and its investors, have been taking lessons from The University of Hard Knocks. Interestingly, they are probably accompanied by many of the socially responsible fund managers and investors whose funds’ returns aren’t much better, if any, than VICEX’s.

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Got A Question?

Send your question about environmental management issues to Experts@GreenBiz.com
We can't guarantee that we'll answer every question, but we'll try.

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