Demystifying Environmental Management Systems

By Jeffrey R. Adrian

Many of today's environmental managers are taking a hard look at implementing some form of an environmental management system (EMS) for their facilities. The arguments for doing so are persuasive. They include the possibility of reduced exposures to liability, more efficient management of environmental affairs with the elimination of duplicative efforts, improved employee and community relations, an opportunity for partnering with regulatory staff, and the very real possibility of bottom line savings. At the John Roberts Company, a commercial printer located in Minneapolis with 320 something employees, all these benefits of implementing an EMS have been realized.

The question for the environmental manager is: Just what "model" for an environmental management system should be selected to pattern their own EMS after? And how can that system be integrated into the way the company does business every day?

I would like to share with you just how the John Roberts Company developed their own environmental management system. It may surprise you to know that our EMS, which we have had in place since early 1993, didn't start out as an EMS. Rather, our system was begun in response to a request by our insurance carrier, whose agent commented on the excellent stand-alone compliance plans that we had already developed and implemented. These plans included Hazardous Communications, Emergency Response & Community Right-to-Know, Pollution Prevention, Lock Out/Tag Out, etc. The agent's comment, speaking in his language of "insurancese", was, "Why not consider combining these excellent plans into a single Loss Control document and then build upon them with the idea of lowering overall risk exposure?" This seemed like a good idea with some potential for a bottom line payoff, and we proceeded with that goal in mind.

By April of 1993, the paperwork foundation of our Loss Control & Safety Plan, later to become a key part of our Environmental Management System, was in place. In addition to the various compliance plans described above, we had included our company policies on environmental stewardship, pollution prevention, safety, LockOut/TagOut. Since we believe that all company policies should be short and to the point, and that our employees should be able to describe our policies (at least in their own words), separate sections were developed to cover guidelines (more descriptive details supporting these policies), accountabilities (who does what), and employee selection (how we go about acquiring responsible employees). Over time, specific sections were added detailing the duties of the Safety & Environmental (S&E) Committee, departmental S&E contacts, emergency procedures for fires, spills, accidents and weather, accident investigation, hazard identification, personal protection, ergonomics, employee training, document control, and environmental auditing.

You may notice a curious thing here, and that is, at John Roberts Company, we combined environmental and safety management. And for good reason. For instance, when one considers just the area of employee training, we discovered that to meet the requirements of "environmental related training", of the top 15 elements we needed to train our employees on, eleven of them were based upon OSHA standards (even though they dealt with the environment), two were based on EPA standards, and two were based on Department of Transportation standards. That's a pretty strong reason for combining environment and safety management, at least for an organization of our size, and I suspect, for most organizations!

We also made many other discoveries in the process of organizing and implementing our fledgling

environmental management system. Among these discoveries was recognizing the tremendous amount of duplication between various regulatory compliance programs. Employee training was just one that stands out, and one where through major changes in how we met this requirement, we saw significant improvement and efficiencies that went straight to the bottom line. Instead of constantly disrupting production by withdrawing employees for training under separate programs, an integrated approach to training made the training more effective (employees could see how programs related to one another) and less time was consumed overall. A side benefit was increased support for this training from production managers.

One thing that all business owners are "tuned" to, is the prospect that an environmental or safety incident could potentially have a major negative impact of a company's ability to grow, or even to survive. Control of exposure to loss can be a tremendous motivation for implementing an environmental management system.

At John Roberts Company, we consider our employees to be our best ambassadors in the community. This is one reason we get all our employees involved with environmental responsibility. Like employees anywhere, our employees want to know two things: why we need to accomplish a particular environmental goal or task, and, what part they are to play in achieving that goal. We take great pains to educate our employees through contacts with the Safety & Environmental Committee members, through our monthly newsletter, and through our self-managed work groups in the various departments. It is not lost on us that with increasing community activism, the inability to demonstrate responsible environmental stewardship could be a real handicap for future company growth.

The John Roberts Company has been fortunate, indeed. In 1995, our company was one of just twelve companies selected nationally to participate in the EPA's pilot Environmental Leadership Program (ELP). As a part of the EPA's efforts to re-invent itself, the ELP pilot was a test plot for new concepts that would enhance environmental performance. One of our two projects was to test the concept of mentoring of environmental management techniques to a series of small printers ranging in size from 18 to 62 employees. A major part of that mentoring involved taking the John Roberts EMS and "minifying" it to fit the specifics of these smaller organizations. By doing so, we would be sharing our experience with these smaller companies that would otherwise lack the resources to develop "from scratch" their own EMS. These companies would then have a valuable tool to help them assure their own future environmental health. What we learned was a valuable lesson in itself: that any company (with a little practical help) could accomplish implementation of an EMS, and that smaller companies could benefit greatly from an EMS sized to meet their needs. This last point, I feel based upon my experience, cannot be emphasized too much. The recent development and publication of the International Organization for Standards' ISO 14001 environmental management standard has attracted a great deal of attention both nationally and internationally as a model for an EMS. Some would say the model. While the ISO 14001 standards were written in part with the idea of "harmonizing" the various individual environmental standards that have been developed around the world, I wonder just how well it meets the needs of the majority of real companies in the marketplace. True, if international trade is your company's focus, than ISO 14001 may indeed be the way to go. But for many of us, the ISO standard, while containing many useful elements, by itself, falls short in meeting the management needs of companies. In many cases, again based upon my experience, ISO 14001 can be overkill and thus not likely to be adopted by companies.

I prefer a simpler, more direct approach, as mentored to the ELP pilot participants. There were six major elements we encouraged the mentored companies to put into place to have their own EMS. They were:

- Flow chart their processes, products, by-products and wastes
- Develop a "compliance drawer" or file with these sections:
    - Permits and Applications

    - Annual Fees and
    - Licenses Compliance
    - Reporting Required
    - Compliance Plans
    - OSHA Issues
    - Employee Training
- Establish a Compliance Schedule (getting all dates and requirements from the first three sections of the Compliance Drawer)
- Complete all required Compliance Plans Develop Employee Training (integrated)
- Establish a combined Safety & Environmental Team

This then, became the foundation of their own environmental management systems. With these elements in place, they could then build their EMS program further as time and resources permitted. For example, if a pollution prevention objective was sought, by combining the first element (flow charts) with the last element (the S&E Team), the company would have the tools to identify specific needs/goals and to implement the changes desired.

Yes, there are many more elements that can be added to enhance the developing EMS. One example might be keeping a "Agency Contact Log", a simple record of all phone contacts listing the date, time, person contacted, agency department, issue(s) discussed, and commitments made by either party. My own experience with this valuable little tool has been that is has "bailed me out" countless times when dealing with regulatory staff. It doesn't hurt at all that it has enhanced my credibility with regulators!

In closing, I would like to encourage you to develop your own company EMS. Whether modeled after ISO 14001, or custom designed to meet your own specific circumstances, either way your company stands to benefit in many ways.

Primary Author

Jeffrey R. Adrian
Environmental Director
The John Roberts Company
jeffadrian@johnroberts.com

Other PNEAC Contacts

Debra Jacobson
University of Illinois Sustainable Technology Center
djacobso@illinois.edu
630.472.5019

Gary Jones
Graphic Arts Technical Foundation
GJones@printing.org
412.741.6860

Wayne Pferdehirt
Solid & Hazardous Waste Education Center
pferdehi@epd.engr.wisc.edu
608.265.2361

Written: October 1996
Reprinted by permission from International Environmental Systems Update, Nov '1996
Updated: June 7, 2011

Note: Reasonable effort has been made to review and verify information in this document. Neither PNEAC and it's partners, nor the technical reviewers and their agencies, assume responsibility for completeness and accuracy of the information, or it's interpretation. The reader is responsible for making the appropriate decisions with respect to their operation, specific materials employed, work practices, equipment and regulatory obligations. It is imperative to verify current applicable regulatory requirements with state and/or local regulatory agencies.