

Commentary & Analysis

Why ISO 14001 Doesn't Deliver Performance (And What to do About it)

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Introduction

Major US industries made commendable progress on the environmental front over the last few decades. They were awakened to the issue by public outrage from incidents like the Bhopal toxic gas release, the Exxon Valdez oil spill and the Love Canal contamination, then spurred on by the avalanche of environmental laws and tougher governmental enforcement policies following in their wake. In recent years, many companies have adopted ISO 14001 and similar environmental management systems (EMSs) to help assure continued progress. The hope for ISO was great, but the delivery has left many companies wanting. So what went wrong?

With 9/11, Al Qaeda, Iraq and the economy now dominating the attention of Washington and with environmental compliance programs firmly in place in large corporations, the Bush Administration has seen no compelling need

to aggressively drive corporate environmental performance. Instead, they are offering more flexibility to companies through their "Clear Skies," "Healthy Forests," "Performance Track" and other programs. While the pressure from Washington has subsided, it has surged from other sources: investors, customers, students and those pervasive public interest groups now commonly referred to as "non-governmental organizations" or NGOs. For transnational corporations, there are still regulatory pressures from foreign governments on climate change, product take-back, environmental reporting and other green initiatives. Developing countries have now found it popular to demonstrate their progressiveness by imposing a long list of environmental requirements on foreign businesses.

To respond to these new pressures, many companies have seen the need to publicize their dedication to environmental excellence. This has given rise to the proliferation of voluntary public environmental reports or, increasingly, the broader "sustainability" reports, which also encompass other corporate social responsibilities. It has also meant responding to an ever-growing number of customer and investor surveys and interviews. One achievement considered a badge of environmental excellence and often touted with pride in these communications is a company's ISO 14001 environmental management certifications.

ISO 14001 environmental management systems standards? like their older quality management counterpart, ISO 9001—outline a continual improvement process extending from policy setting and planning through implementation, checking and corrective action and ending with management review. The process is one continuous, repeating loop with the cycle accomplished at periodic intervals, typically annually. Companies may evalu-

ate their programs against these standards or hire an accredited consultant to formally review and certify conformance. The certifying consultants receive their own accreditation from independent oversight bodies like the American National Standards Institute¹ (ANSI) and the Registrar Accreditation Board² (RAB) in the US and the United Kingdom Accreditation Service³ (UKAS) in Britain.

Certification of facility programs under ISO 14001 has proven popular, soaring from around 8,000 in 1999 to over 50,000 today. There are now over 3,000 certified sites in the US, and four times that amount in Japan, the country with the most certifications. The auto industry and other business groups have contributed to this growth by requiring their suppliers to be certified.

Some developing nations have insisted or encouraged certification by new foreign-owned operations as a simple way to evaluate a company's commitment to environmental responsibility without taxing their governments' limited administrative resources. More and more socially conscious investment groups and investor-rating organizations are asking companies about certification status. Many companies have sought certification under the belief that it improves environmental performance—regulatory compliance, risk control and waste prevention and its associated cost savings? or simply to keep up with the Joneses. This growing chorus of support for ISO 14001 has been based primarily on one assumption: certification under ISO 14001 is confirmation of environmental excellence.

If certified systems are good, then comparable uncertified systems should also be beneficial? or at least that's the thinking reflected in

US EPA's 2002 EMS Position Statement.⁴ According to the statement, the agency is committed to promoting EMSs among industry, which it is doing through its Performance Track recognition program for facilities. The statement also promises EPA will be adopting EMSs at its own facilities, leading the way for other federal sites to do the same by the end of 2005 as required by a Clinton Executive Order. In addition, the implementation of an EMS is now commonly included as a condition of settlement agreements in agency environmental enforcement actions.

Does ISO 14001 Deliver Superior Performance?

Despite the recent popularity of EMSs and contrary to common belief, however, there is growing evidence that ISO 14001 and similar systems frequently do not deliver superior performance:

- A 1999 survey of 200 companies certified to ISO 14001 or the comparable European Union Environmental Management and Audit Scheme⁵ (EMAS) reported that respondents had expressed "a certain frustration that more environmental improvements are not being achieved..."⁶
- In 2001, the environmental performance of 430 European sites in 270 companies and six different industries was conducted by the University of Sussex (UK) and others.⁷ The study found that in four indus-

⁴ For full-text see <http://www.epa.gov/ems/policy/position.htm>

⁵ See http://europa.eu.int/comm/environment/emas/index_en.htm

⁶ Mats Zackrisson, Maria Enroth, and Angelica Widing, *Environmental Management Systems—Paper Tiger or Powerful Tool*, December 2000, IVF Research Publication 00828 (Stockholm: Industrial Research Institutes in Sweden, December 2000), p.56.

⁷ Frans Berkhout and Julia Hertin, *Towards Environmental Performance Management*, (Brighton, UK: SPRU, University of Sussex, et al., under contract with the European Commission, April 2001).

¹ See <http://www.ansi.org/>

² See <http://www.rabnet.com/>

³ See <http://www.ukas.com/>

try sectors, there was “no evidence of a link” between the use of ISO or EMAS and better environmental performance. Only limited evidence was found in another sector. Performance among fossil-fuel-based electrical generating firms certified to ISO was actually determined to be worse than that of their non-certified competitors.

- A UK Environment Agency⁸ review of 843 European sites in 2002 reported that while sites with ISO or EMAS certification had better procedures, they were “neither more nor less likely to suffer from incidents, complaints or non-compliance events than those without.”⁹
- A study completed in 2003 for US EPA and the Multi-state Working Group on Environmental Management Systems¹⁰ compared the environmental performance of 27 US company and government facilities before and after their implementation of an EMS.¹¹ The results were mixed. A large majority of the sites perceived some benefits from the EMS although many of these benefits were not quantified. Less than 50 percent of the sites achieved improvements in more than half of their environmental indicators after EMS adoption. Statistically, the introduction of an EMS showed no significant effect on regulatory compliance. Performance

changes were no better for those facilities with ISO-certified EMSs as for those with uncertified systems.

- Some 350 environmental consultants and ISO- and EMAS-certified companies were contacted in a 2003 poll jointly sponsored by Environmental Data Services¹² (ENDS) and the Institute of Environmental Management and Assessment¹³ (IEMA) in the UK.¹⁴ While a majority of the respondents said they believed EMSs provided a basis for better environmental performance, a third believed that EMSs do not in themselves deliver sustained improvements. The consultants were most critical, with only a third agreeing that EMSs normally reduce risk in terms of noncompliance and reputational and financial issues.

Reasons for the Gap Between ISO 14001 Expectations and Delivery

So why the big gap between what is expected and what is being delivered by ISO 14001 and other EMSs? Some of the answers were found in a follow-up evaluation to a pilot study at Baxter International. The pilot undertook several EMS-type evaluations to see if sites could be certified to the OHSAS 18001 health and safety management standard. One site preliminarily deemed qualified for certification was found to have higher than normal accident rates. Probing of the Baxter pilot results as well as discussions with other companies suggest the reasons for EMS performance failure most likely lie in four areas:

1. Nature of the Standard. While many believe ISO 14001 and comparable standards should deliver superior environmental performance, ISO itself does not promise that. ISO certification may be

⁸ See <http://www.environment-agency.gov.uk/>

⁹ Policy Studies Institute, *Environmental Management Systems and Operator Performance at Sites Regulated Under Integrated Pollution Control*, R&D Technical Report P6-017/2/TR (Bristol, UK: UK Environmental Agency, 2002), p.iv.

¹⁰ See <http://www.mswg.org/>

¹¹ Richard N.L. Andrews, et al., “Environmental Management Systems: Do They Improve Performance?” *National Database on Environmental Management Systems, Project Final Report: Executive Summary* (University of North Carolina at Chapel Hill under contract with the U.S. EPA and the Multi-State Working Group on Environmental Management Systems, January 30, 2003).

¹² See <http://www.ends.co.uk/>

¹³ See <http://www.iema.net/>

¹⁴Environmental Data Services Ltd., “EMS Survey Reveals Widespread Concerns Over Certification,” *The ENDS Report*, no. 347, December 2003, pp. 19-21.

granted to a facility that is not in regulatory compliance or among the best in waste reduction or risk control. There need only be a program for achieving some self-identified objectives and a commitment to comply and continually improve performance; there is no prerequisite that good performance be achieved. In short, awarding an ISO certificate is like withholding your teenage son's allowance because his room is a mess and then paying him anyway because he tells you he now has a plan for cleaning it and - commits to make it a little better sometime in the future. Another shortcoming of ISO 14001 and similar systems standards is that they are intended only for facilities. That's fine if it's a one-site company. However, if corporate or division staff are located elsewhere, then this can be a problem. While ISO auditors sometimes review division or corporate operations, it is only in connection with the oversight and support those management groups provide for the site. The standard does not contemplate any evaluation of division- or corporate-level decisions and actions related to environmental compliance, risk or waste reduction at their own level. The extent to which environmental considerations are included in corporate or division decision-making—say, around matters like the negotiation of master purchasing or supply agreements or product take-back arrangements—is not addressed. Unfortunately, decisions at these higher levels often have a significant impact on a company's overall environmental performance.

Properly Designed EMS Provides Consistent Output With Improve Efficiency

2. Auditor Technique. Like a good production machine, a properly designed EMS is supposed to provide consistent output with improved efficiency. While some

machine deficiencies may be spotted during a physical inspection of the device, most surface when the machine fails to produce products according to spec at the anticipated rate. The real test of a machine's effectiveness is determined by looking at its output. Likewise, to determine the effectiveness of an EMS, one must closely examine the consistency and nature of the output—compliance, risk control and productivity (waste reduction). Too often auditors don't do this, but instead focus on the EMS itself: procedures described in documents. Too often they fail to address the "wet ink syndrome" and accept an EMS even though the procedures were drafted only days before and there has been no track record of consistently good performance. Granted, some review of documents is necessary, especially those showing past performance and regulatory compliance, but auditors should spend most of their time interviewing and observing the behavior of line workers and their supervisors, learning how the EMS works in practice at the point of decision-making and action. Effective systems auditing is not simply dashing through a yes-no checklist. Given the nature of the EMS standards, auditors may feel they are limited to judging the output of an EMS by whether performance is inching forward in "continual improvement" rather than delivering good overall performance as judged against benchmarked operations. This is a mistake. Poor performance even though it's improving, should be a sign that the process is still in need of significant correction. Sometimes a machine's output is poor even though the machine itself is in perfect operating condition. In those cases, one must check the adequacy of the inputs to the machine: the energy source, materials, and the people operating and maintaining it. For an EMS, the inputs are top management support, people, and in-

formation. Where an EMS isn't delivering good performance and problems with inputs are suspected, these inputs must also be probed by interview and examination to search for root causes. Such a review often reveals broad-based deficiencies in tools, training, accountability, roles and responsibilities, resources or personnel competency, among other things. Effectively spotting and addressing these root causes is critical for achieving superior long-term performance. Nevertheless, many times this isn't done.

3. **Auditor Knowledge.** Nearly half of the respondents to the ENDS-IEMA survey said that auditors issuing ISO and EMAS certifications lacked an adequate understanding of either environmental issues or the business they were auditing. Where auditors lack such understanding, they cannot provide a sound evaluation of compliance, risk and waste-reduction issues—the outputs of the EMS. If they can't properly evaluate the outputs of the EMS, then they can't properly judge the EMS so the client can adjust it for optimal performance. Auditor competency must be closely scrutinized, especially when quality auditors are asked to review environmental systems or, as commonly the case these days, when environmental auditors are asked to evaluate health and safety systems.
4. **Company Culture and Pressures.** Good environmental performance is more likely to flow from an EMS if employees are motivated to deliver that performance. The US EPA study showed, for example, that facilities that were prompted to adopt an EMS in large measure because of market pressures were also those that showed a measurable improvement in compliance.

Indeed, external concern about environmental performance and the transparency with which results are reported can bring the spotlight to the issue. In the corporate environmental

world as in the world of science, light brings heat brings change. That would help explain why the study by the UK Environmental Agency found the performance of sites registered to EMAS—which requires public reporting of performance—was better than that of sites certified under ISO—which does not. It would also help answer why the US EPA study found that publicly traded companies—whose environmental results are often closely examined by investors, customers and governments? tended to have better performance than private companies and government facilities.

Pressure to Achieve ISO Certification Not the Same as Pressure to Deliver Environmental Results

But pressure to achieve ISO certification is not the same as pressure to deliver environmental results. In fact the former can interfere with the latter. The environment, health and safety leader of one major company said her organization was reluctant to retain aggressive accredited ISO auditors or to ask auditors to withhold certification where performance was poor because this would mean disqualification to sell product to certain major customers. This made her job more difficult, she said, because with a certificate on the wall, her facilities no longer felt the need to improve. Unfortunately, the temptation for companies to adopt such a strategy grows with each earnings crisis, budget cut and headcount reduction. Unless the company culture values true environmental excellence, transparency and “tough love” accountability, it will have few facilities with superior environmental results. Having an EMS program won't change that. Like a blue-ribbon petunia potted in poor soil with little water, even the best designed EMS planted in an unsupportive culture has no chance for success. Culture is critical.

But EMSs can work, and with the right company culture and auditor technique and

knowledge, the chance of success increases dramatically. Under those conditions, ISO certification can make sense as the big, high-visibility motivator, the highly desired Trojan horse loaded with those things that do drive results, the prize that no one wants to lose.

Certifications Not Badges of Environmental Excellence

Still, something must be done to correct the misconception that an EMS itself—ISO and EMAS certification in particular—are badges of environmental excellence. One step would be for groups like ANSI, RAB and UKAS to strengthen their criteria for accreditation of ISO auditing firms and improve their surveillance of auditor knowledge and technique. A spokesman for UKAS recently provided some hope that this may be done. In response to the ENDS-IEMA survey, he reportedly said, “We have let things slide and I think certification bodies have let things slide, and we have to take some responsibility for that.”¹⁵ But UKAS can’t do this alone. Accreditation boards exist in scores of other countries, and they too must step up. Otherwise there’s nothing to prevent auditing firms from shopping for easy approvals.

Another strategy would be to establish two categories of certification: one for the EMS itself and another for performance. An “ISO + Performance Excellence” certificate could be issued to those sites with an EMS that have produced benchmark-quality results. If this approach is acknowledged by ISO, a single combined certificate could be issued. If ISO is reluctant to embrace this, then the accredited auditors themselves could supplement the ISO certificate with an unsanctioned certificate of their own verifying superior performance. As “ISO-Plus” became part of common parlance, the true meaning of ISO and similar systems would be understood, and companies and their stakeholders would be

motivated to focus on what many thought they were getting all along: ever-improving excellence in environmental results.

Of course, an ISO-Plus approach begs the question: what is superior environmental performance at a facility? There is no perfect answer to this.¹⁶ While any approach will require some flexibility and judgment, there should be enough objective criteria included to avoid frenzied shopping for an easy auditor. Here are some straw-man criteria that could be used to start the debate:

- No governmental notices of violation over the past two years.
- No spills that would be recordable under US law within the past two years.
- In the most recent audit:
 - no repeat items from previous audits;
 - no observed conditions posing significant risk of serious harm to people or the environment.
- All items from the latest audit closed out.
- Waste generation and pollution emission rates per unit of production likely to be among the best third among comparable operations based on internal or external benchmarking or, if that’s not practicable, based on the best judgment of the accredited auditing firm.
- Good reputation with local environmental agency based on discussions with agency people.
- Environmental community outreach initiative established.
- At least annual public reporting of performance on key measurable environmental aspects.

¹⁶ See for example, Richard MacLean, “Superior Environmental, Health and Safety Performance: What Is It?” *Environmental Quality Management*, Winter 2003, pp. 13-20.

¹⁵ Ibid, p.3.

- No articles critical of the facility's environmental performance reported in the local paper over the last two years.
- No complaints from the public about the facility's environmental performance over the past two years.

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If the environmental systems audit includes health and safety—as many do—then the following criteria could be added to cover the safety component:

- Lost-time and recordable accident rates at no more than one-third the US national average for the relevant industry category.
- No fatalities or injuries requiring hospitalization over the past two years.
- No incidents arising from faulty process safety programs over the last two years.

Whether it is ISO-Plus or something else, whatever is to be done must be done soon. The value of all those investments in ISO 14001 certifications is in jeopardy. The credibility of ISO 14001, of EMSs and of all the organizations and professionals that have promoted them are at stake. Certainly, credibility is an asset environmental, health and safety professionals cannot afford to lose, especially at this time when they are being hammered by cutbacks and struggling to show business value. The time to act is now? before it's too late.

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