



Comparative Research in Law & Political Economy

CLPE RESEARCH PAPER 07/2008 • VOL. 04 NO. 02 (2008)

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How Not to Incorporate Voluntary Standards into Smart Regulation: ISO 14001 and Ontario's Environmental Penalties Regulations

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Abstract: In June, 2007 the province of Ontario, Canada, released environmental penalties (EPs) regulations. EPs (or administrative penalties, as they are called in the US) are the environmental equivalent of speeding tickets for facilities that violate pollution laws. They are found in numerous jurisdictions and are widely understood as part of a move toward “smart” regulation. The Ontario regulations offer reduced EPs to facilities with an environmental management system (EMS) that meets the requirements of ISO 14001 or the chemical industry’s Responsible Care initiative. We argue that non-governmental, consensus-based standards such as ISO 14001 can and should play a constructive role in smart regulation and the pursuit of sustainability, but that the Ontario government’s attempt to incorporate them into its EPs regulations was anything but smart. We present six tips for how to incorporate voluntary standards into official regulation. First, don’t reinvent the wheel. If a standard exists that fulfills the objectives of a proposed regulation, and the standard was developed by a recognized standards body through a multi-stakeholder consensus process, regulators should incorporate the standard into the regulatory scheme as far as possible and appropriate, rather than drafting a new standard from scratch. Second, avoid unexplained discrepancies between the regulation and the standard. Third, if an existing widely accepted standard does not, on its own, meet all the public policy goals of the proposed regulation, indicate clearly how the standard is deficient and what more is required to meet public policy objectives. Fourth, should consult relevant standards development committees when developing regulations. Fifth, take advantage of ongoing opportunities to participate in the work of relevant standards development committees, to keep abreast of developments and influence the content of standards. Finally, and this is the biggest challenge, both regulators and standards

development bodies should address the special characteristics and challenges of small businesses.

Keywords: ISO 14001, environmental management systems, environmental penalties, administrative penalties, standards, smart regulation, reflexive regulation.

JEL classification: K20, K23, K32

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HOW NOT TO INCORPORATE VOLUNTARY STANDARDS INTO SMART REGULATION: ISO 140001 AND ONTARIO'S ENVIRONMENTAL PENALTIES REGULATIONS

Stepan Wood* & Lynn Johansson**

I. INTRODUCTION

In June, 2007, the government of Ontario, Canada, released its long-awaited Environmental Penalties (EP) regulations.¹ EPs are an environmental version of speeding tickets: financial penalties that may be imposed by government inspectors upon discovery of an alleged environmental violation, without having to prove the elements of an offence through an expensive and time-consuming trial. The regulations offer a small reduction in the amount of an EP if the violator had an environmental management system (EMS) in place that conformed to the ISO 14001 international EMS standard or the chemical industry's

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** President, E2 Management Corporation, Georgetown, Ontario and Chair, TC/EMS and CAC/SC 1. The same disclaimers apply as under Note 1.

¹ Environmental Penalties (*Environmental Protection Act*), O. Reg. 222/07; Environmental Penalties (*Ontario Water Resources Act*), O. Reg. 223/07. See also Ontario Ministry of the Environment, *Guideline for Implementing Environmental Penalties (Ontario Regulations 222/07 and 223/07)* (Toronto: Queen's Printer for Ontario, 2007).

Responsible Care program. This article explores the implications of this attempt to incorporate voluntary EMS standards into regulation.

An EMS is a set of management processes and procedures that allow an organization to identify, plan for, and manage the environmental aspects of its activities, products and services.² Starting in the early 1990s, national and international standards development bodies began to develop EMS standards to offer comparability across organizations, sectors, and jurisdictions. In 1996 the International Organization for Standardization (ISO), a federation of national standards bodies from around the world, published the first edition of the ISO 14001 international EMS standard. ISO 14001, which was revised in 2004, quickly emerged as the world's pre-eminent EMS standard. It has been adopted as a national standard by Canada³ and more than 140 other countries,⁴ and has been incorporated as the EMS component of the European Union's voluntary Eco-Management and Audit Scheme (EMAS).⁵ As of January, 2007, almost 130,000 ISO 14001 certificates had been issued to private and public sector organizations in 142 countries.⁶ Countless more organizations have implemented ISO 14001 without seeking third party certification.

² Environmental aspects are things an organization has or does that can result in adverse or beneficial impacts on the environment. Environmental aspects include consumption of energy, water and materials, generation of noise, emission of pollutants, transportation of goods, and generation of waste. Waste is often the first environmental aspect considered by an organization, because it is among the most visible and is often a sign of inefficient operation. Where there is negative environmental impact, there is often lower productivity and lost profit. It is this opportunity for cost savings and improved efficiency that drives many organizations to implement an EMS.

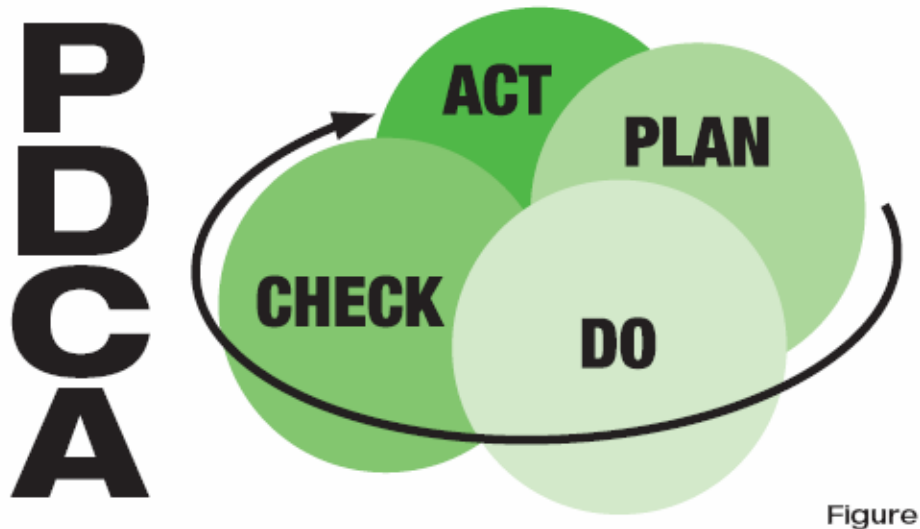
³ *CSA/ISO 14001:2004, Environmental management systems: requirements with guidance for use* (Mississauga, Ontario: Canadian Standards Association, 2004).

⁴ ISO, *The ISO Survey of ISO 9000 and ISO 14000 Certificates, 2006* (Geneva: ISO, 2007). The figure is approximate because national member bodies have no obligation to report their adoption of ISO standards.

⁵ Regulation (EC) No. 761/2001 of the European Parliament and of the Council of 19 March 2001 allowing voluntary participation by organisations in a Community eco-management and audit scheme (EMAS), O.J. L 114 (April 24, 2001) 1-29. *See also* European Commission, "EMAS – The Eco-Management and Audit Scheme," online: ec.europa.eu/environment/emas/index_en.htm.

⁶ Reinhard Peglau, "Worldwide ISO 14001 Update January 2007" (unpublished report, copy on file with authors). The number is approximate, because data are provided

ISO 14001 is based on a cyclical “Plan-Do-Check-Act” (PDCA) process: An organization Plans to do something. It Does it. It Checks the results, and takes Action to correct problems, prevent recurrences and improve future results, all resulting in a process of continual improvement (See Figure 1).



Figure

Figure 1. The Plan, Do, Check, Act Model.

Source: Lynn Johansson, *Handbook on Green Productivity* (Tokyo: Asian Productivity Organization, 2006).

The presence of an EMS does not mean that an organization will never have another environmental problem. It does not mean that an organization will never cause a spill. However, a robust and credible EMS can enhance an organization’s efficiency, productivity, environmental performance and regulatory compliance by helping it to:

- understand its environmental impacts,

voluntarily and there is no centralized system of reporting. The number of firms with ISO 14001 certificates is probably much lower than the total number of certificates and possibly as low as 55,000-60,000, because large organizations typically obtain certificates at the individual facility level.

- identify cost-saving environmental improvement opportunities,
- set and achieve environmental goals,
- identify and comply with its legal and other obligations,
- systematically control those aspects of its operations that cause environmental impacts,
- monitor and measure its performance, take corrective and preventive action when needed,
- assign environmental responsibilities and ensure personnel are competent to discharge them,
- anticipate and respond to environmental emergencies, and
- conduct regular and thorough reviews to find opportunities for improvement.⁷

This article is not about the potential advantages or disadvantages of an EMS, however. We can take it as a given that the Ontario government believes EMSs offer some benefits in terms of improved environmental or regulatory performance. Otherwise why would it have proposed any penalty reduction for firms with EMSs? The question for this article is, given the government's acknowledgement of the potential benefits of EMSs, how should it have gone about incorporating them into its regulatory scheme?

Ontario's draft EP regulations were released for public comment in October, 2006 after several years of anticipation.⁸ Although the proposed

⁷ For empirical evidence of the impact of EMSs on environmental performance and regulatory compliance, see Aseem Prakash and Matthew Potosky, *The Voluntary Environmentalists* (Cambridge, UK and New York: Cambridge, 2006).

⁸ The government released two draft regulations. One was made under the *Environmental Protection Act*, R.S.O. 1990, c. E.19. The other was made under the *Ontario Water Resources Act*, R.S.O. 1990, c. O.40. The operative provisions of the two regulations were essentially the same. For purposes of discussion, this article will refer to the EPA regulation. The draft regulations were accompanied by a guidance document and various other supporting materials. See Draft Ontario Regulation made under the Environmental Protection Act – Environmental Penalties (no date) [“Draft EP regulation”]; Draft Ontario Regulation made under the Ontario Water Resources Act – Environmental Penalties (no date); and Ontario Ministry of the Environment, *Draft Guideline for Implementing Environmental Penalties* (September 2006) [“Draft EP Guideline”]. All were posted for public comment on the Ontario Environmental Bill of Rights Registry on October 6,

penalty reduction for EMSs was a minor feature of the scheme and would apply in just one of ten Canadian provinces, it caused a stir in the global EMS standards community. What alarmed the international EMS community was not that the government would offer a penalty reduction for EMS adoption. This was generally welcomed. It was how the government proposed to incorporate EMSs into the regulatory system that caused concern.

ISO 14001 is a consensus-based standard that was developed and refined through a delicate, decade-long international negotiation process. It has been implemented by more than 100,000 organizations worldwide. Instead of integrating the globally-recognized ISO 14001 standard into its EP regulations, the government effectively wrote its own detailed EMS standard from scratch. The government's proposed EMS model was broadly similar to ISO 14001 and more or less compatible with leading sectoral standards such as the chemical industry's Responsible Care program.⁹ Yet it was full of idiosyncratic terminology, concepts and requirements that would make it very difficult for a regulated organization, auditor or government official to determine exactly how a "regulatory EMS" would differ from an ISO 14001 EMS, or exactly what more was needed to meet the requirements of the regulation. The result would have been uncertainty and added cost for regulated firms, with uncertain public policy benefits

Moreover, at no point in the preparation of the draft EP regulations did the government consult with the established, multi-stakeholder national committee responsible for negotiating international EMS standards and adopting national EMS standards for Canada. It was only after the draft regulations were released for public comment and the Canadian EMS standards committee requested a meeting that the government consulted relevant organs of the Canadian National Standards System.¹⁰

2006, EBR Registry No. RA06E0013, online: www.ebr.gov.on.ca, but were removed when the final versions were released (copies on file with the authors).

⁹ The Responsible Care program was initiated by the Canadian chemical industry in 1985 and is now a global initiative of the International Council of Chemical Associations. See the Responsible Care website at www.responsiblecare.org.

¹⁰ For a description of the Canadian National Standards System see Standards Council of Canada, "National Standards System", online: <http://www.scc.ca/en/nss/>.

In the end the Ontario government heeded the concerns of the EMS standards community. These concerns were focused on the problems caused by a parallel, “home-grown” EMS specification.¹¹ The Ministry incorporated most of the committee’s suggestions into the final EP regulations, which were released in June, 2007.¹² The government deleted its “home-grown” EMS and simply referred to ISO 14001 and Responsible Care as the applicable standards. This eliminated the risk of uncertainty and added cost for regulated firms. But it also represented a lost opportunity to engage in a serious public conversation about what ISO 14001 can contribute to the achievement of public policy goals, what magnitude of regulatory incentive it should merit (for instance, is a 5% penalty reduction appropriate?), and what additional or different steps beyond conformity to ISO 14001, if any, should be expected from regulated entities in exchange for more favourable regulatory treatment. These questions have been raised in various jurisdictions around the world since the first publication of ISO 14001 in 1996, and are long overdue for serious and sustained public policy deliberation.

As a result, Ontario’s EPs regulations and the process by which they were developed provide an object lesson in how not to approach the relationship between standards and government regulation. The implications extend well beyond the subject of EPs and EMSs to embrace broader questions about:

- what constitutes “smart” regulation,
- what role standardization should play in smart regulation, and
- what role standards and smart regulation should play in meeting the challenge of sustainable development.

¹¹ The Canadian EMS committee did not express a view on other aspects of the draft regulation that were of concern to individual members. Various companies, industry groups, EMS auditors and environmental non-governmental organizations expressed their views on these other issues separately.

¹² O. Reg. 222/07 & 223/07, above n. 1.

We cannot answer these questions adequately without recognizing the unique characteristics and challenges of small business. Small business is the sleeping giant in the sustainability story, and it is about to awaken. Government environmental regulation, for all its successes, has proven inept at solving the environmental problems of and promoting environmental sustainability in small business. Ontario's EP regulations are but one example of this problem. To be fair, the standardization community in general and ISO in particular have done no better at responding to the sustainability challenges of small business. This article is a wake up call to both governments and standardization bodies to find new ways to engage with small business, and quickly. Unfolding environmental crises such as those associated with climate change, and impending demographic shifts associated with the aging of the Baby Boom generation, mean that Canada and other countries are about to enter a period of turmoil that will truly test their understanding of and ability to evolve toward sustainability.

Using Ontario's EP regulations as a cautionary tale, this article presents six tips for regulators on how to approach voluntary standards when developing regulations.¹³ The tips are presented from the perspective of two of the many people who have participated actively, on a volunteer basis, in the development of ISO standards and their adoption as national standards of Canada. The six tips are:

1. **Don't re-invent the wheel.** If recognized standards development bodies have gone to the trouble of developing a widely accepted, consensus-based standard that addresses the subject matter of a proposed regulation, incorporate the existing standard as far as possible and appropriate, instead of drafting a new specification from scratch;
2. **Strive for consistency.** If a widely accepted standard already exists on the subject, don't create a host of

¹³ While our tips are aimed specifically at the development of subordinate legislation (such as regulations in Canada and administrative rules in the United States), they apply generally to the development of public policy instruments by the executive or legislative branches of government, from statutes to regulations, rules, orders, licences, and guidelines.

unexplained inconsistencies between the proposed regulation and the standard;

3. **Make any extra requirements clear.** If an existing widely accepted standard does not, on its own, meet all the public policy goals of the proposed regulation, identify clearly how the standard is deficient and what more is required to meet public policy objectives;
4. **Connect with the experts.** Consult relevant standards development committees when developing regulations;
5. **Get involved in voluntary standards development.** Participate in the work of relevant standards development committees to keep abreast of relevant issues and influence the content of standards on an ongoing basis; and
6. **Consider the needs of small business.** Design regulations in a way that addresses the special characteristics and challenges of the small-to-medium-sized enterprises (SMEs) that represent around 98%¹⁴ of the business community.

Before we turn to these tips, a brief introduction to environmental penalties is in order.

II. ENVIRONMENTAL PENALTIES

Ontario borrowed the idea of environmental penalties from the United States, where similar tools have been available since the 1970s, usually under the name “administrative penalties” (APs). APs take two basic forms. Some, known as expedited AP orders or field citations, are issued on the spot by government enforcement personnel, like traffic tickets.

¹⁴ Industry Canada, “Key Small Business Statistics (KSBS)” (July 2007), online: www.strategis.gc.ca/sbststatistics.

These penalties impose small set fines for particular offences (usually in the hundreds of dollars) and are subject to limited appeals and procedural protections for violators. The second form, known simply as administrative or civil penalties, are not issued on the spot but assessed in an environmental agency office on the basis of inspection reports and other information. They are determined in accordance with often complex, discretionary penalty assessment procedures based on a range of factors including:

- the gravity of the violation,
- the violator's state of mind,
- the violator's compliance history, and
- the monetary or other benefits reaped by the violator as a result of the violation.

They are typically much larger than on-the-spot fines (ranging from thousands to tens of thousands of dollars) and involve considerably more procedural steps and safeguards.

A. THE EMERGENCE OF ADMINISTRATIVE PENALTIES

Administrative penalties were introduced to allow government officials to issue relatively modest financial penalties for relatively minor environmental violations. This avoided the expense of a full-blown prosecution. Previously in the US (and to a large extent still in other jurisdictions including Canada), environmental law enforcement boiled down more or less to a binary choice between voluntary industry compliance and the blunt instrument of criminal or quasi-criminal prosecution, with the latter reserved only for the most egregious cases.¹⁵ Investigations and prosecutions would often drag out for years before reaching a final conclusion. As a result, many violations were not investigated or prosecuted at all.¹⁶

¹⁵ E.g. David Boyd, *Unnatural Law* (Vancouver: UBC, 2003).

¹⁶ Dianne Saxe, "Environmental penalty discount for ISO 14001:2004 users" *ISO Management Systems* (March-April 2007) 38.

Several innovative enforcement tools, including APs, civil enforcement actions, citizen suits and creative sentencing, were introduced to get away from this often unsatisfactory binary choice. What sets APs apart is that they do away with the need for formal court proceedings altogether. In theory this may reduce enforcement costs for governments, regulated firms and interested third parties alike, and increase the level of enforcement of environmental laws.¹⁷ For these reasons many governments have embraced APs enthusiastically.

Regulated industries, on the other hand, have generally recoiled from them. They object to the spectre of absolute liability, the relative lack of judicial scrutiny, the high level of administrative discretion over some APs, and the one-size-fits-all approach of others. Some environmental non-governmental organizations (ENGOS) have embraced APs, but others have condemned them as trivializing what should properly be considered crimes.¹⁸

These concerns notwithstanding, APs have proliferated in the US and have since been introduced in several other countries. They are available under all major US federal environmental statutes and in many states. They are one of the US Environmental Protection Agency's favourite enforcement tools and their use has increased dramatically in the last few years. The US EPA issued over 4,600 final APs in fiscal year 2006 with a total value of US \$42 million.¹⁹

¹⁷ Carolyn Abbot, "Environmental Command Regulation," in Benjamin J. Richardson and Stepan Wood, eds., *Environmental Law for Sustainability* (Oxford: Hart, 2006) 61 at 94.

¹⁸ *Ibid.* at 93.

¹⁹ US Environmental Protection Agency, *Compliance and Enforcement Annual Results: FY 2006 Numbers at a Glance* (November 15, 2006), online: www.epa.gov/compliance/resources/reports/endofyear/eoy2006/fy2006numbers.pdf (accessed 21 May 2007). These were the highest totals ever by far. Previously the number had fluctuated between around 1000 and 2000 final APs per year. US Environmental Protection Agency, "National Enforcement Trends – FY 2005," online: www.epa.gov/compliance/data/results/nets.html (accessed 21 May 2007).

B. ENVIRONMENTAL PENALTIES IN ONTARIO

Administrative penalties were first introduced in Ontario legislation in 1998. Faced with industry opposition, the government did not finalize the implementing regulations and the legislation was never brought into force. After a change of government and some high profile spills from petrochemical facilities, a new provincial statute known as the “Spills Bill” was enacted in 2005.²⁰ Among other things, it reintroduced administrative penalties under the name “environmental penalties” (EPs). The government’s message to polluters was simple: “You spill, you pay.”²¹ The stated purpose of the Spills Bill was to ensure that polluters face immediate consequences for their actions. EPs would be assessed by Ministry of the Environment (MOE) officials within a few days of a spill. In theory, this “would encourage companies to make greater efforts to prevent spills” and provide “additional incentives to clean them up quickly”.²²

The Spills Bill amended the province’s two flagship pollution statutes, the *Environmental Protection Act*²³ and *Ontario Water Resources Act*,²⁴ to authorize the imposition of EPs on “regulated persons”. The purpose of EPs was to protect the environment by encouraging companies to take steps, including implementation of an environmental management system (EMS), to prevent environmental violations, remedy their effects and prevent their recurrence.

The EPs provisions were to come into force only after implementing regulations were finalized. The provincial government engaged in a year-long process of public and stakeholder consultations on the EP regulations,

²⁰ *Environmental Enforcement Statute Law Amendment Act, 2005*, S.O. 2005, c. 12 (Bill 133).

²¹ Government of Ontario, News Release, “McGuinty Government Introduces Environmental Penalties Legislation” (27 October 2004), <http://www.ene.gov.on.ca/envision/news/2004/102702.htm> (accessed 21 May 2007).

²² *Ibid.*

²³ Above n. 8.

²⁴ *Ibid.*

starting in September, 2005 and culminating with the posting of the proposed regulations and a detailed guidance document for a 98-day public comment period in October, 2006.²⁵

Under the draft regulations, only around 150 large facilities in nine industry sectors²⁶ that discharge contaminated effluent to a surface water course or private effluent treatment plant would be subject to EPs. At first, EPs would only be available for violations involving unlawful discharges to water or land, with other violations such as permitting, operating, sampling, reporting and record keeping contraventions to be phased in after 18 months.

The draft regulations specified the procedures for initiating, calculating, reviewing, settling, issuing, appealing and paying EPs. They set the maximum amount of EPs at \$100,000 per violation, per day, and specified factors for determining the amount of an EP. EPs were not on-the-spot fines, but were to be issued by the MOE only after notice to the violator. The violator would have an opportunity to submit information and request a review of the proposed EP. The amount of an EP would be determined by an MOE Director based on the gravity of the violation and any monetary benefit acquired by the violator as a result of the violation. The amount could be reduced for a good compliance history, preventive measures, prompt remedial action, membership in a provincial environmental leadership program, or if the violator agreed to invest in a “beyond compliance” project that delivered environmental or human health benefits.

In addition, the “gravity component” of an EP would be reduced by 5% for violators who could demonstrate that they had an EMS in place at the time of the violation that met the detailed requirements set out in Schedule 1 of the regulations.²⁷ The EMS would have to have been audited by an

²⁵ Ontario Ministry of the Environment, “Consultation Process: Environmental Penalties” (slide presentation, November, 2006; copy on file with authors).

²⁶ Electric power generation, industrial minerals, inorganic chemicals, iron and steel manufacturing, metal casting, metal mining, organic chemical manufacturing, petroleum and pulp and paper. Draft EP Regulation, *supra* note 8, s. 2(1) and Table 1.

²⁷ *Ibid.*, s. 17 and Schedule 1.

independent, external auditor and the violator would have to submit a statement from the auditor certifying that the EMS satisfied the requirements of the regulations. In effect, this called for a compliance audit, not an audit of an EMS, let alone an ISO 14001 audit. Industry and auditors objected that the cost of the required audit would exceed the benefit of the 5% reduction.

Aside from this 5% reduction, procedures implemented or actions taken as part of an EMS (for example, environmental policies and procedures, risk analysis, preventive maintenance, containment structures, monitoring systems, operational controls, employee training, and emergency preparedness and response systems) could also be taken into account when determining what actions the violator took to prevent or mitigate the violation, further reducing the gravity component of the EP.

The size of the penalty reduction for an EMS might seem so modest as not to merit any serious attention. Why all the fuss about such a minor incentive? On one level this is a fair point. The amount of the penalty reduction is insufficient to provide any genuine incentive for regulated facilities to implement an EMS in line with the regulations. Furthermore, the penalty reduction was relatively small potatoes in the public debate about the EPs scheme. It was dwarfed by industry concerns about double jeopardy and absolute liability.

On another level, however, the EMS penalty reduction raises issues that far exceed its modest size.

C. ENVIRONMENTAL PENALTIES AND SMART REGULATION

The introduction of APs or EPs is widely seen as part of a move toward “smarter” or more “responsive” regulation. “Smart regulation” is presented by its proponents as an alternative to both the inherently limited “command and control” model of first-generation environmental regulation and the perceived excesses of neo-conservative deregulation.²⁸

²⁸ E.g. Neil Gunningham, Peter Grabosky and Darren Sinclair, *Smart Regulation* (Oxford: Clarendon, 1998); Ian Ayres and John Braithwaite, *Responsive Regulation: Transcending*

The “command and control” model of environmental regulation was first introduced to respond to the plethora of environmental problems brought on by industrial pollution.²⁹ This model of regulation was highly intrusive, prescriptive and inflexible, typically prohibiting any polluting activity without a permit. It commanded in detail when and to what extent industry should clean up, often to the point of prescribing the precise technologies to be used. It controlled the observance of these prescriptions through monitoring, inspection and criminal or quasi-criminal enforcement. It is widely credited with having achieved substantial improvements of a variety of “first generation” environmental problems. But by the early 1980s it had come under increasing criticism for being too cumbersome, costly, rigid and slow in producing further improvements. There were warnings that it was nearing the limits of its technical capacity³⁰ or liable to “break down under its own weight.”³¹ These critiques had early political victories in the neo-conservative programs of deregulation and fiscal restraint of the Reagan-Thatcher years. By the mid-1990s, however, inspired by the Rio Earth Summit and an unprecedented wave of public environmental awareness, many governments and regulation scholars began to take more nuanced approaches to the problem, seeking to reinvent environmental regulation in ways that built on its early successes and at the same time recognized its limitations and the changing nature of environmental problems.

One of the principal limitations of traditional environmental regulation is that it was and remains aimed overwhelmingly at large, stationary, point-source polluters – that is, big companies and government facilities (for

the Deregulation-Reregulation Debate (Oxford: Oxford U.P., 1992); Cass Sunstein, “Paradoxes of the Regulatory State” (1990) 57 *U. Chi. L. Rev.* 407.

²⁹ For overviews of the command model of environmental regulation and its critics, see Lynn Johannson, “Tuning into Station WIFY on ISO 14000: What’s in it for you” *Total Quality Environmental Management* (Winter 1995/96) __; Ben Richardson and Stepan Wood, “Environmental Law for Sustainability,” in Ben Richardson and Stepan Wood, eds., *Environmental Law for Sustainability* (Oxford: Hart, 2006) 1, 3-13; Carolyn Abbot, “Command Environmental Regulation,” in *ibid.*, 61.

³⁰ Gunningham, Grabosky and Sinclair, above n. 28.

³¹ Eric W. Orts, “Reflexive Environmental Law” (1995) 89 *Northwestern U. L. Rev.* 1227, 1241.

example, sewage works and power plants). By contrast, many of the most pressing contemporary environmental challenges – habitat destruction, biodiversity loss, climate change and persistent toxic substances, to name some of the most prominent – are of a different, potentially more intractable, character because they are the cumulative results of the everyday choices and actions of countless people and organizations that control innumerable geographically dispersed, often mobile, non-point sources of pollution. To address these problems, we must mobilize and influence a much broader range of actors, including individuals, households and – crucially, as we will argue toward the end of the article – small business.

The paradigmatic tools of command regulation have limited capacity to respond to these contemporary challenges and to regulate these kinds of actors effectively. A traditional command-regulation approach to these problems and actors would entail a prohibitively costly, technically impractical and politically unacceptable level of government intrusion into the minutiae of everyday life. It is questionable whether such an approach would yield a net gain for the environment

We use “smart regulation” as an umbrella term for efforts to take a more nuanced and sophisticated approach to environmental and other problems. It aims to make more effective and efficient use of public resources. It employs a greater variety of regulatory instruments, from taxes and emissions trading to corporate environmental disclosure and public participation rights. It seeks to stimulate self-reflection and self-correction by regulated actors in line with public goals, rather than dictating the details of permissible behaviour. Such an approach “attempts to create incentives and procedures that induce entities to act in certain ways and to engage in internal reflection about what form that behaviour should take...the state sets goals, but shares more of the responsibility for achieving them with regulated entities.”³²

³² D.J. Fiorino, “Rethinking Environmental Regulation: Perspectives on Law and Governance” (1999) 23 *Harv. Envtl. L. Rev.* 441, 448.

Smart regulation has been embraced, in various forms, by governments and intergovernmental organizations throughout the developed world.³³ In Canada, its most recent manifestation was the previous federal government's Smart Regulation initiative, launched in 2005 and led by the Treasury Board. The stated goal of the Smart Regulation initiative was to create better, not less, regulation.³⁴ The initiative was continued under a different name, but with substantially the same emphasis, by the current federal government elected in January, 2006.³⁵ It involves a restructuring of the process of assessing, reforming and improving the regime in which regulations are developed, managed, enforced and measured. It calls for:

- increased scrutiny of the costs and benefits of new and existing regulations;
- increased cooperation and harmonization among federal, provincial, and territorial governments, including more consistent environmental assessment procedures;
- quicker approval processes for drugs, medical devices, and pesticides; increased international regulatory cooperation, including, most importantly, greater harmonization of regulatory standards and product approvals with the United States;
- greater understanding and support for the needs of large industry; and

³³ Much of the impetus for this spread came from the Organisation for Economic Co-operation and Development (OECD) and its multi-year Regulatory Reform agenda. E.g. Organisation for Economic Co-operation and Development, *Regulatory Policies in OECD Countries* (Paris: OECD, 2002); Organisation for Economic Co-operation and Development, *Trade and Regulatory Reform: Insights from Country Experience* (Paris: OECD, 2001).

³⁴ The word "smart" was an acronym for "Specific, Measurable, Attainable, Realistic, and Timely," although the government did not necessarily commit to achieve these specific objectives. Reg Alcock, President of the Treasury Board of Canada, "Government of Canada's Implementation Plan for Smart Regulation," speech delivered to National Press Club (Ottawa, 24 March 2005), online: www.tbs-sct.gc.ca/media/ps-dp/2005/0324_e.asp?printable=True.

³⁵ The current Conservative government calls it "performance-based regulation" and dropped the adjective "smart," presumably to distance itself from the previous Liberal government. See Government of Canada, "Regulation" web site, online: www.regulation.gc.ca.

- less burdensome regulation of small business.³⁶

The Smart Regulation initiative has been criticized by leading Canadian environmental groups, who argue that it:

- is a deregulatory agenda in disguise,
- prioritizes business over public health, safety, and the environment,
- neglects the need to apply and enforce existing environmental regulations,
- ignores evidence that command regulation can be more effective than voluntary or non-regulatory approaches, and
- ignores evidence that international harmonization tends to exert downward pressure on environmental, health, and safety standards and to hamper transparency, accountability, timeliness and effectiveness of regulation.³⁷

Whatever the merits of these objections, they are a useful reminder that smart regulation is not just about greater flexibility, competitiveness and lower regulatory costs for regulated businesses. It must balance these attributes with the imperative to protect public health, safety, welfare, and environmental integrity and promote environmentally and socially sustainable economic development. It is also a reminder that strong and effective laws and regulations can and should maintain a prominent place in a sophisticated mix of policy instruments.

Smart regulation, in theory, means using the best tool for the problem at hand, employing the best technique for every situation. Among other

³⁶ External Advisory Committee on Smart Regulation, *Smart Regulation: A Regulatory Strategy for Canada* (Ottawa: External Advisory Committee on Smart Regulation, 2004).

³⁷ Canadian Environmental Law Association, Letter to Prime Minister Paul Martin (22 October 2004), online: www.cela.ca (accessed March 12, 2005); Canadian Environmental Law Association (CELA) et al., Letter to Chair and members of the External Advisory Committee on Smart Regulation (16 August 2004), online: www.cela.ca (accessed March 12, 2005); and West Coast Environmental Law Association, West Coast Environmental Law's Comments on 'Smart Regulation for Canada,' Submission to External Advisory Committee on Smart Regulation (August 2004), online: www.pco-bcp.gc.ca/smartreg-regint/en/06/01/index.html (visited 12 March 2005).

things, the federal government directive on Smart Regulation challenges government decision-makers to “make use of all or parts of relevant national or international standards, guidelines, and recommendations as a basis for technical regulations and for conformity assessment procedures when they fulfill intended policy objectives.”³⁸ This brings us to the central question of this article: what role can voluntary non-governmental standards play in smart regulation and in moving society on the path toward sustainability? We answer this question in the form of six tips for regulators.

III. SIX TIPS FOR INTEGRATING STANDARDS INTO SMART REGULATION

In the remainder of the article we present six tips for how to integrate non-governmental consensus standards into government regulation. In each case, we use the example of the draft Ontario EP regulations as an object lesson.

Tip 1. Don’t re-invent the wheel. If recognized standards development bodies have gone to the trouble of developing a widely accepted, consensus-based standard that addresses the subject matter of a proposed regulation, incorporate the existing standard as far as possible and appropriate, instead of drafting a new specification from scratch.

When the government of Ontario decided to develop regulations offering a penalty reduction to violators with an EMS in place, it had a choice. It could adopt ISO 14001 or another existing standard as a benchmark against which their management systems would be judged. Or, it could develop its own EMS requirements from scratch. ISO 14001 is the product of many thousands of hours of deliberation by hundreds of experts over more than a decade. It was drafted by experts from industry,

³⁸ Government of Canada, Cabinet Directive on Streamlining Regulation (Ottawa: Government of Canada, 2007) 6, online: www.regulation.gc.ca. This directive replaced the previous Liberal government’s Cabinet directive on smart regulation, which contained an identical provision.

environmental consulting firms, standards development organizations, government, consumer groups and – to a lesser extent – environmental groups and research institutions, representing dozens of countries and international organizations. These experts, working mostly as volunteers, developed ISO 14001 over an initial five year period and saw it through a further five-year revision process that culminated with the publication of the second edition in 2004. Most of them participated through their national ISO member bodies. Some participated through the numerous international governmental and non-governmental organizations that have liaison status with ISO. The process involved a significant investment of resources. It work followed the consensus-based standards development model of ISO and its member bodies. In this model, in theory at least, all major interests, from big and small business to auditors, governments, consumers, public interest groups and scientists, are represented effectively. In theory, the resulting standards reflect a consensus of all these interests. While this ideal may not be realized perfectly in practice,³⁹ ISO 14001 represents the closest approximation we have to a global consensus on what an environmental management system should look like.

Instead of reaping the fruits of this collective experience and expertise, the government of Ontario expended substantial time and energy drafting its own detailed description of the requirements an EMS must meet to qualify for the reduction. These requirements did not refer to ISO 14001 or any other standard such as the chemical industry's Responsible Care program.⁴⁰ Instead it set out detailed requirements for:

- an environmental policy,
- identification of environmental aspects and legal requirements,
- environmental objectives and targets,
- roles and responsibilities,
- resources,

³⁹ Some environmental NGOs, for example, withdrew from or refused to participate in the development of ISO 14001 in the mid-1990s because of perceived industry domination.

⁴⁰ Draft EP regulation, *supra* note 8, Schedule 1.

- operational control,
- monitoring,
- emergency preparedness and response,
- corrective and preventive action,
- training and competence,
- documentation,
- audits and management review.

These are all typical elements of an EMS.

The government may have had cogent reasons for promulgating its own purpose-built EMS standard. For one thing, it commissioned research which revealed that many companies' EMSs were custom-made or based on a particular industry code such as Responsible Care. The government wished, quite reasonably, to accommodate the diversity of approaches to EMSs. Another reason may have been the government's concern that an ISO 14001-based EMS, on its own, would not respond adequately to public policy objectives such as improved spill prevention, corrective action, legal compliance, and corporate transparency.

A. ADVANTAGES OF INCORPORATING STANDARDS INTO REGULATION

Given this line of reasoning, why should regulatory authorities incorporate existing non-governmental standards into regulatory instruments? Why, for example, should the Ontario government adopt ISO 14001 as the baseline for eligibility for an EP reduction? The Standards Council of Canada (SCC) answers this question as follows:

Some advantages for a regulatory authority referencing standards developed within the National Standards System include:

- (a) the standards have been developed by balanced committees of all relevant interests, employing the principles of consensus;

- (b) the standards have undergone a public review process as well as a “second level review” by the SDO [standards development organization] prior to publication;
- (c) the standards are maintained and reviewed at appropriate intervals to ensure current technological developments are incorporated;
- (d) the commercial needs of producers, users, and other interests are addressed at the development stage, thus ensuing regulations referencing these standards are more amenable to commercial acceptance; and,
- (e) the standards address the national public interest by considering to the extent possible as appropriate to the subject of the standard, how it advances the national economy, supports sustainable development, benefits the health, safety and welfare of workers and the public, assists and protects consumers and facilitates trade.⁴¹

B. WHAT ARE STANDARDS?

What, then, are standards and what is the Standards Council of Canada? For purposes of this article, a standard is a “document, established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or results, aimed at the achievement of the optimum degree of order in a given context.”⁴² Standards may relate to nomenclature, measurement, design, function, performance, safety, consistency, ingredients or any number of other attributes of materials, products or the processes by which they are produced. They may relate to inter-operability or compatibility of different products. They may also, as in the case of EMS standards, relate

⁴¹ Standards Council of Canada, *Key Considerations in the Development and Use of Standards in Legislative Instruments* (Ottawa: Standards Council of Canada, 2006) 3, online: <http://www.scc.ca/en/publications/brochures/index.shtml>.

⁴² Standards Council of Canada, *CAN-P-1E, Accreditation of Standards Development Organizations* (Ottawa: SCC, 2006) s. 2.2 (“CAN-P-1E”), online: <http://www.scc.ca/en/publications/criteria/all.shtml>, quoting ISO/IEC Guide 2:2004, *Standardization and Related Activities – General Vocabulary* (Geneva: ISO/IEC, 2004) s. 3.2 (“ISO/IEC Guide 2”).

to a generic management framework and associated processes employed by organizations.

Standardization is as old as human history.⁴³ The case for standardization is simple. Clear, verifiable standards facilitate trade by encouraging consistency and interchangeability of products and parts from different places. They protect customers by discouraging fraud. They can enhance the reliability and safety of goods and services. In theory, they can facilitate the transfer of technology from advanced to developing and transitional economies and promote transnational cooperation on economic and scientific matters. For proponents of standardization, the value of standards in enhancing productivity and prosperity cannot be understated.⁴⁴ According to critics, however, standards may inhibit innovation by fixing technologies or practices in time. They may also operate as barriers to market entry, a complaint often raised by developing country producers who see standards as non-tariff trade barriers. Despite these potential objections, standards are widely seen by governments and business as enhancing social welfare and economic prosperity.⁴⁵

Virtually no aspect of our daily lives is untouched by standards. Many people are unaware how deeply their lives are affected by standardization. Standards govern everything from screw thread sizes and bicycle helmet design to internet protocols and high definition television formats. In Canada alone there are several thousand national standards “for everything from AC circuits to zirconium”.⁴⁶ At the international level there are many thousands more. ISO has published almost 16,500 international

⁴³ John Perry, *The Story of Standards* (New York: Funk & Wagnalls, 1955).

⁴⁴ Danielle Goldfarb, *If We Can Fix It Here, We Can Make It Anywhere: Effective Policies at Home to Boost Canada's Global Success* (Ottawa: Conference Board of Canada, 2007).

⁴⁵ E.g. World Trade Organization, *World Trade Report 2005: Exploring the Links between Trade, Standards and the WTO* (Geneva: WTO, 2006) at 29, 41.

⁴⁶ Standards Council of Canada, “National Standards System”, online: <http://www.scc.ca/en/nss/>.

standards.⁴⁷ You can thank international standards for the fact that a bank card issued by a Canadian bank works in a bank machine in Brazil, or that you can fix a lawnmower made in the United States with a bolt made in China. For all their pervasiveness, however, standards and the bodies that develop them keep a remarkably low profile. You may have heard of ISO photographic film speed ratings (if you are old enough to remember film cameras, that is). You may have seen the Underwriters Laboratories (UL) logo on consumer products. You may even have been momentarily curious when passing a highway billboard declaring a facility to be registered to ISO 9001 or ISO 14001.⁴⁸ But this is the extent of most people's knowledge of standards.

Standards, as defined in this article, have two key characteristics that distinguish them from legislative instruments such as statutes and regulations. First, they are approved by a recognized body, which means a body recognized by the relevant national or international body responsible for accrediting standards development organizations. Second, they are established by consensus, which carries two conditions: first, that representatives of all interest categories participate in their development; and second, that there is no sustained opposition from any significant segment of interested parties at any critical stage in the development of a standard.

C. APPROVED BY A RECOGNIZED BODY

Although there may occasionally be a question whether a particular body is or should be a "recognized body," the central players are uncontroversial. ISO sits at the pinnacle of the standardization world and is recognized, alongside a handful of other international standards

⁴⁷ International Organization for Standardization, *ISO In Figures for the Year 2006* (Geneva: ISO, 2007), online: <http://www.iso.org/iso/en/aboutiso/isoinfigures/January2007-p1.html>.

⁴⁸ Registration is only one option for demonstrating conformity to these two voluntary standards. We discuss the other options below.

bodies,⁴⁹ as a leading source of technical standards. ISO has been recognized as such by the World Trade Organization's Technical Barriers to Trade (TBT) Committee and numerous United Nations organs. There is no controversy that it is a "recognized body" for purposes of our definition. It is a network of 158 national member bodies, one member per country, coordinated by a Central Secretariat in Switzerland.⁵⁰

ISO occupies a peculiar niche, perched between the public and private sectors. It acts as a bridging organization, striving for consensus on standards that meet both the needs of society, as articulated by governments, and the requirements of business. ISO membership is open to the one body in each country that is the most representative of standardization in its country. Many ISO member bodies, especially in developing and transitional countries, are government agencies or quasi-public bodies with their mandates set out by legislation. Other ISO member bodies in some industrialized countries have their roots in the private sector, representing national partnerships of industry associations.

Canada's ISO member body is the Standards Council of Canada, a federal crown corporation created by statute in 1970. Its mandate is to foster and promote voluntary standardization in Canada. Although it reports to Parliament and is financed partially by Parliamentary appropriation, it is independent of government in its policies and operations. The SCC is governed by a Governing Council of 15 members appointed to represent federal, provincial and territorial governments, accredited Canadian standards development organizations (SDOs) and the private sector.

The SCC oversees Canada's National Standards System (NSS) and coordinates Canadian input to foreign and international standardization forums, including ISO. The NSS is a network of more than 400 organizations and more than fifteen thousand individuals involved in standards development, promotion and implementation in Canada. The SCC does not develop standards itself. It has accredited four SDOs to

⁴⁹ Chief among which are the International Electro-technical Commission (IEC), the International Telecommunications Union (ITU) and the Codex Alimentarius Commission (Codex).

⁵⁰ *ISO In Figures for the Year 2006*, *supra* note 47.

develop National Standards of Canada. The Canadian Standards Association (CSA) is one of these.⁵¹ We will focus on CSA since it is responsible for developing Canadian EMS standards. CSA is an independent, not-for-profit membership-based association serving business, industry, government and consumers. Its primary mandate is to develop standards that work for people and business.⁵²

When CSA or another accredited SDO develops a standard, it submits it to SCC for approval as a National Standard of Canada. Similarly, when an international standards body such as ISO develops a standard with Canadian participation or potential application in Canada, the standard may be submitted to SCC by the relevant Canadian SDO for approval as a National Standard of Canada. A standard may be designated as a National Standard of Canada if it meets the following criteria:

- it was developed by a committee that had balanced representation of all stakeholders including consumer and public interests and followed a consensus process,
- the standard was subjected to public review,
- it is published in both official languages,
- it is consistent with existing international standards and
- it does not constitute an illegitimate barrier to trade.⁵³

D. DEVELOPED BY CONSENSUS

The principle of consensus is the core of the standards community's claim to credibility. It is the key reason regulators should refer to standards when developing regulatory instruments. SCC adopts ISO's definition of consensus as "general agreement, characterized by the absence of sustained opposition to substantial issues by any important part of the

⁵¹ The others are the Bureau de Normalisation du Québec (BNQ), Canadian General Standards Board (CGSB), and Underwriters Laboratories of Canada (ULC).

⁵² See CSA home page, <http://www.csa.ca>.

⁵³ Standards Council of Canada, *CAN-P-2F, Requirements and Procedures for the Request for, Development, Approval, Preparation, and Maintenance of National Standards of Canada* (Ottawa: SCC, 2006) ("CAN-P-2F"), online: <http://www.scc.ca/en/publications/criteria/all.shtml>.

concerned interests and by a process seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments.”⁵⁴ Elaborating upon this basic definition, SCC’s rules – which are contained in basic documents known as “CAN-Ps” – require that the consensus process be governed by the following principles:

- a) Equal access and effective participation by concerned interests (this entails sufficient resources, equal access to information, and understanding of the process by all parties). In order to ensure effective participation, resources (money, training, staff expertise, etc.) shall be identified for member participation;
- b) Respect for diverse interests and identification of those who should be provided access ... to provide the needed balance of interests;
- c) Mechanism for dispute resolution....⁵⁵

SCC recognizes the “particular challenges in finding the resources to permit participation by Small and Medium Enterprises (SME), academics, and consumers.”⁵⁶

SCC and CSA host or support the work of thousands of volunteers from all segments of Canadian society who serve on hundreds of different standards development committees. The principle of consensus is manifested in both the structure of these committees and their decision-making processes. SCC and CSA rules require that the membership of standards development committees reflect a "balanced matrix" of interested and affected parties. This is to ensure that the committee can capitalize on the combined strengths and expertise of all interest groups and no single category of interest can dominate the process.⁵⁷ The SCC and CSA recognize four basic interest categories:

⁵⁴ CAN-P-1E, above note 42, s. 2.1, quoting ISO/IEC Guide 2, above note 42, s. 1.7.

⁵⁵ CAN-P-1E, *ibid.*, s. 1.1.

⁵⁶ *Ibid.*

⁵⁷ CAN-P-2F, above note 53, s. 3.1.5.

- Producers (those predominantly involved in production of products, materials or services, which usually means business firms);
- Users (those who predominantly represent end users of the subject products, materials or services, including consumers);
- Regulators (government bodies involved in regulating the subject products, materials or services); and
- General interest (those with a demonstrated interest who do not fall into the other categories, such as academics, scientists and public interest NGOs).⁵⁸

Other interest categories may be identified that are relevant to particular committees' work. In the area of environmental management, for example, "service/professional" is recognized as a separate interest category to reflect the role of professional consultants, auditors and registrars⁵⁹ in this area.

Each CSA standards development committee must have a membership matrix that is approved by a strategic steering committee responsible for overseeing its work.⁶⁰ The matrix defines interest categories appropriate to the committee's scope and stipulates the minimum and maximum numbers of voting members for each interest category. The actual number of voting members in any one category may not exceed the sum of the actual number of voting members in the two smallest interest categories. This requirement must be maintained as individual members change. Further, it must be met whenever any letter ballot or recorded vote is taken. If the committee is out of balance, a vote will not be taken until balance is restored. Once a draft standard has been agreed upon in committee, it is submitted for public review and amended if necessary to reflect the comments received. Finally, standards are living documents, revised and refreshed to address changing requirements and emerging

⁵⁸ Ibid.; Canadian Standards Association, *CSA Directives and Guidelines Governing Standardization, Part I: Participants and Organizational Structure* (Rexdale, ON: CSA, 1999) s. 3.3.3 ("CSA Directives").

⁵⁹ It should be noted that registrars do not vote in Canadian standards development committees, as this might represent a conflict of interest.

⁶⁰ CSA Directives, above n. 58, s. 3.3.

technologies. Each standard is reviewed every five years in a process of continual improvement. If the review concludes that a revision is required, this triggers a process of negotiations to improve the standard.

The principles of balanced representation and consensus decision-making are, not surprisingly, realized imperfectly in practice. The CSA has been criticized for inadequate participation by consumer groups, public interest NGOs and SMEs.⁶¹ There are various obstacles to effective participation by these interest categories, not the least of which are competing priorities and lack of awareness, resources, time, or technical capacity. This makes it difficult to maintain a balanced matrix in some cases. In other cases, there may be more difficulty attracting adequate participation from government or industry. In any event the principle of equal and effective participation by all interest categories is taken seriously by both CSA and SCC. Furthermore, it is not clear that typical governmental policy-making processes do a substantially better job than CSA or SCC at ensuring balanced and effective participation by all interested and affected parties. As a result, the Canadian “balanced matrix” approach to national standards development is frequently held up as an example for other ISO member bodies to follow.

E. MANAGEMENT SYSTEM STANDARDS

ISO 14001 is a management system standard. Unlike traditional technical standards that address the characteristics, performance or design of specific products, management system standards address the broader management structures and processes employed in organizations. They are “generic” in that they are not specific to any particular product, material, process, or industry sector but may be applied by any organization of any size or type, regardless of location and regardless of whether it is in the private or public sector.

⁶¹ See, e.g., Canadian Institute for Environmental Law and Policy, *CSA Environmental Standards Writing: Barriers to Environmental Non-Governmental Organizations Involvement* (Toronto: CIELAP, 1997); Pollution Probe, *Environmental Non-Governmental Organization (ENGO) Participation in National Standards Setting* (Toronto: Pollution Probe, 2002).

Management system standards were first developed in the field of quality management. The best known are the ISO 9000 family of quality management standards. More than 900,000 certifications exist in 170 countries and economies to the ISO 9001 quality management system standard.⁶² As with ISO 14001, this number does not reflect the number of firms with ISO 9001 certificates, because one company may hold more than one certificate. The exact number of companies involved is not known. The management system approach has spread to other fields such as food safety, corporate social responsibility, information security and occupational health and safety.

It also spread, famously, to environmental management. There are more than twenty standards in the ISO 14000 family. With the exception of ISO 14001, they are all guidance standards, developed to help the user better understand the opportunities available regarding various aspects of environmental management. At the heart of this family is ISO 14001, the standard on environmental management systems. It is the only standard in the family that sets out “specifications” – that is, auditable requirements. ISO 14001 outlines requirements that standards developers from around the world have agreed are important to “enable an organization to develop and implement a policy and objectives which take into account legal requirements and information about significant environmental aspects.”⁶³

ISO 14001, like other generic management standards, is designed to help any organization improve how it manages the environmental impacts of its activities, products or services. The organization may be a for-profit private sector enterprise, a not-for profit organization or a public sector entity. ISO 14001, like ISO 9001, is a voluntary standard. Organizations may adopt it in part or in whole. Only organizations that adopt all its requirements may claim conformity to the standard, but many organizations may realize benefits from implementing only certain parts of it. An organization may, for instance, already have a management system of its own design in place and wish to improve just one or a few elements. Furthermore, ISO 14001 is a “what” document. It outlines the requirements of a well-functioning EMS, but it does not dictate *how* these

⁶² ISO Survey, above n. 4.

⁶³ ISO 14001: 2004, above n. 3, Introduction.

requirements are to be fulfilled. The *how* is the responsibility of the adopting organization. This allows ISO 14001 to accommodate the diversity of organizations, cultures, and economic regions.

Considering this diversity, it is amazing that agreement on an international EMS standard was achieved at all. Recall that standards are developed via a consensus process, so there has to be substantial agreement without sustained opposition from any significant portion of the interested parties at the table for a standard to be voted and accepted as an ISO document. Consensus has to be achieved not just at the international level but also in each ISO member body, where national negotiating positions are worked out and decisions ultimately made whether to adopt an ISO standard nationally.

ISO 14001 was developed by an ISO committee known as ISO/TC 207/SC 1. Canadian experts played important roles in the negotiation of the original standard and its recent revision. Throughout this process, Canada's position in the international negotiations was developed by a national "mirror committee," the Standards Council of Canada's Canadian Advisory Committee on ISO/TC 207/SC 1 (the "CAC/SC 1" for short). This mirror committee is harmonized with (i.e., identical to) the CSA technical committee responsible for developing national EMS standards, the CSA Technical Committee on EMS (the "TC/EMS" for short).⁶⁴ As such, the committee members wear two hats. When deliberating Canadian positions in the international standards development process, they act as the CAC/SC 1. When considering whether to adopt a final ISO standard as a National Standard of Canada or other issues affecting domestic EMS standardization, they act as the TC/EMS. Either way, the committee is bound by the balanced matrix and consensus requirements described above. This multi-stakeholder Canadian EMS standards committee deliberated at great length the merits of ISO 14001 for use in Canada.

The existence of ISO 14001 is a testament to a global recognition of the challenge of sound environmental management and the benefits of a

⁶⁴ CSA environmental committee names and structures were changed in 2007, but the basic model of a combined national and international "mirror" committee on EMS was maintained. The combined TC/EMS—CAC/SC 1 is now a subcommittee of a larger CSA Technical Committee on Environmental Management and Related Activities.

common framework upon which common elements can be addressed in a way that enables comparison across different organizational, social and economic contexts. A key advantage of voluntary management system standards is that they enable an “apples to apples” comparison, while accommodating regional variability and the unique characteristics of individual organizational cultures. Just as there are over 10,000 different varieties of apples, there is massive variety among private, public and voluntary sector organizations. The flexibility of ISO 14001 is important as there are over 150 million legally constituted enterprises in the world. Over 95% of these are SMEs.⁶⁵ When properly integrated, the management system for each one would reflect something of its unique business culture, even though there would be similarities within a sector or business type. That is both the beauty and the bane of EMS standards.

F. INCORPORATING EMS STANDARDS INTO SMART REGULATION

When drafting its EPs regulations, the Ontario government could have incorporated ISO 14001 as a baseline for the EMS component of the regulations. It did not. ISO 14001 was not even mentioned in the draft regulations. Instead the government drafted its own ad hoc, six-page⁶⁶ EMS standard more or less from scratch, along with a fifty-page guidance document which included a table listing some differences between its regulatory EMS and ISO 14001. With the stroke of a pen, more than a decade of complex international negotiations, delicate compromises and multi-stakeholder national deliberations over ISO 14001 were set aside, at least for purposes of the EPs regime.

This was not an example of Smart Regulation, for several reasons. First, by attempting, in effect, to write a whole new EMS standard, the government passed up an opportunity to save some public policy development costs by taking advantage of the substantial expertise, time

⁶⁵ We estimated this figure by extrapolation from data compiled by the International Finance Corporation. International Finance Corporation, *Micro, Small and Medium Enterprises: A Collection of Published Data* (Washington: IFC, 2006).

⁶⁶ For comparison, this is approximately the same length as the requirements clause of ISO 14001. ISO 14001:2004, above note 3, clause 4.

and money that went into the development of the existing ISO 14001 standard. This would have been an effective way to move a portion of the cost of policy development off the public budget and enlist non-governmental resources in the development of public policy instruments.⁶⁷

Second, even more important than saving governmental resources, one of the central goals of smart regulation is to enlist the self-critical, reflexive capacities of regulated actors so that they govern themselves in line with democratically established public policy goals. EMSs are quintessentially a reflexive tool.⁶⁸ If designed properly and implemented in a robust and credible manner, they stimulate organizations to reflect upon and systematically manage their environmental aspects and impacts. This fosters a cyclical process of target-setting, implementation, self-evaluation and high level management review that prompts continual improvement of both their management systems and their environmental performance. EMSs allow organizations to internalize environmental issues, including environmental legal requirements, into all decision-making, from high level strategy to daily operations.

Third, and crucially, regulations encouraging voluntary EMS adoption preserve a high level of autonomy for regulated entities. We live in liberal-democratic capitalist societies, in which individual autonomy and private enterprise are fundamental values. Autonomy in an enterprise is a valued condition; that is one reason it is called “private” enterprise. Business owners wish to maintain their autonomy so that they are able to respond quickly, efficiently and profitably to market needs. Encouragement of autonomy also makes sense from a regulator’s perspective, within certain limits. Although there are exceptions, the most effective forms of regulation are often those that induce regulated entities to exercise their autonomy in a direction that achieves regulators’ public policy goals, rather than intervening in the minutiae of regulated firms’ operations. This might be considered the Holy Grail of contemporary regulation in liberal-capitalist societies: to design a regulatory regime that effectively enlists the autonomous self-regulatory capacities of regulated

⁶⁷ See Peter N. Grabosky, “Using Non-Governmental Resources to Foster Regulatory Compliance” (1995) 8 *Governance* 527.

⁶⁸ Orts, *supra* note 31.

actors in the service of democratically determined public policy goals.⁶⁹ Simply put, the more an organization does on its own and the more efficiently and effectively it operates, the less burden there is on law enforcement and the public purse. This is true whether it is a private or public sector organization. Governments that promote policies encouraging the adoption of EMSs can expect to benefit from more independent action that may conceivably place many organizations ahead of regulatory requirements, provided the EMSs are sufficiently robust. Regulations that encourage the adoption of credible and robust EMSs can, therefore, exploit the autonomous, reflexive capacities of regulated organizations in the service of collective goals.

Incorporating an existing National Standard of Canada into the EP regulations rather than rewriting it from scratch would also have had other advantages, including:

- Presenting a regulatory solution that was likely to meet the expectations of a majority of the stakeholders addressed by the regulation, since the standard was developed by a consensus of various interests;
- Embodying the knowledge and experience of a wider range of experts than the government might normally have at its disposal;
- Enhancing uniformity of requirements faced by regulated entities, thereby reducing regulated entities' costs and eliminating barriers to movement of goods and services;
- Enhancing the likelihood of voluntary, market-driven compliance with regulations, thereby reducing the burden of regulatory oversight; and
- Enhancing social efficiency, insofar as regulated entities use the same tool to meet both market and regulatory needs.⁷⁰

⁶⁹ E.g. Nikolas Rose and Peter Miller, "Political Power Beyond the State: Problematics of Government" (1992) 43 *British J. Sociology* 173, 184; Grabosky, above note 67; Gunningham, Grabosky & Sinclair, above n. 28, 10, 123-125; Nikolas Rose, *Powers of Freedom: Reframing Political Thought* (Cambridge, UK: Cambridge, 1999) 50.

⁷⁰ Standards Council of Canada, above note 41, 6.

In light of these advantages it is not surprising that governments incorporate non-governmental technical standards into regulation very frequently and have done so as long as anyone can remember, especially in the fields of health, safety and consumer protection.⁷¹ Hundreds of voluntary standards have been incorporated by reference into current Canadian federal, provincial and municipal laws.⁷² The same is true in many other jurisdictions, including the European Community.⁷³ There are many ways to incorporate non-governmental standards into government regulation. For example:

- conformity with a voluntary standard might be made mandatory for particular organizations, products, materials, equipment, or processes,
- it might be made a default basis for issuing a government approval,
- it might be a consideration or requirement for government procurement contracts,
- it might be the basis for eligibility for subsidies, reduced penalties or relief from otherwise applicable regulatory requirements (as in the case of the Ontario EP regulations)
- Regulators or courts might be authorized to order violators to implement a voluntary standard,
- a voluntary standard might be identified as “good practice” for regulatory purposes,
- nonconformity with a voluntary standard might trigger documentation, reporting or remediation duties,
- use of a voluntary standard might be authorized for testing, inspecting or measuring a regulated entity’s operations, equipment, or products, or

⁷¹ E.g. Robert W. Hamilton, “The Role of Nongovernmental Standards in the Development of Mandatory Federal Standards Affecting Safety or Health” (1978) 56 *Texas L. Rev.* 1329.

⁷² Saxe, above note 16.

⁷³ E.g. EMAS Regulation, above note 5.

- a voluntary standard's definition of a term might be adopted as the regulatory definition.⁷⁴

Standards can be incorporated in whole or in part, and with or without qualifications.⁷⁵

Standards are usually incorporated into regulation by reference – that is, the standard is referred to rather than reproduced in the regulation. Occasionally, governments reproduce standards or parts of standards verbatim in regulations. This is true of the EMAS regulation, which reproduces Clause 4 of ISO 14001 verbatim (with ISO's permission) as the EMS component of the scheme. The main disadvantage of this approach is the danger that inconsistency will develop between the regulation and the standard over time. Standards are typically revised from time to time, necessitating amendment of the corresponding regulation and posing the risk of inconsistency if there is a lag between publication of the revised standard and amendment of the regulation.⁷⁶ Incorporation by reference, by contrast, allows regulators to accommodate subsequent changes to a standard without the necessity of further regulation. This allows regulation to respond easily and quickly to technical changes. The trade-off is reduced control over the content of regulation, which may be undesirable from the regulator's perspective. In some cases it may even constitute an impermissible delegation of authority.⁷⁷ As a result

⁷⁴ For a taxonomy of ways in which voluntary standards might be incorporated into official legal systems, see Stepan Wood, "Environmental Management Systems and Public Authority in Canada: Rethinking Environmental Governance," (2002-03) 10 *Buffalo Env'tl. L.J.* 129; Stepan Wood, "Green Revolution or Greenwash? Voluntary Environmental Standards, Public Law and Private Authority in Canada," in Law Commission of Canada (ed.) *New Perspectives on the Public-Private Divide* (Vancouver: UBC, 2003) 123; Errol Meidinger, "Environmental Certification Programs and U.S. Environmental Law: Closer than You May Think" (2001) 31 *Env'tl L. Rptr.* 10162.

⁷⁵ See, e.g., Standards Council of Canada, above note 41, 8-9 (discussing options for incorporating standards into regulation).

⁷⁶ Indeed, the EMAS regulation had to be amended after ISO 14001:2004 was published, to incorporate the changes to the standard.

⁷⁷ In common law jurisdictions, for example, governmental authorities that are given rule-making authority by legislation usually may not delegate the exercise of this power to other bodies unless authorized to do so by their enabling legislation.

regulators must choose a method of referencing standards that strikes an appropriate balance.⁷⁸

Standards may be referenced in a wide range of public policy instruments, including statutes and regulations, permits, policies and guidelines, and government-industry agreements.

G. THE AMERICAN EXPERIENCE

One reason given by Ontario Ministry of the Environment officials for drafting their own detailed EMS standard rather than incorporating Canada's national EMS standard, ISO 14001, by reference was that environmental enforcement officials in the United States have done the same thing. In fact, the American situation is quite different from Ontario's, and the differences are instructive.

The United States Environmental Protection Agency's Office of Enforcement and Compliance Assurance issued a guide on "compliance-focused environmental management systems" in 1997.⁷⁹ This guide, which was revised most recently in 2005 to reflect the publication of ISO 14001:2004, is designed for use in federal environmental enforcement settlement agreements – that is, where the EPA agrees to settle a pending civil or criminal enforcement action in return for the alleged violator's implementation of an EMS. It describes twelve elements of a *compliance-focused EMS* (CFEMS, for short), along with detailed model language for inclusion in a consent decree embodying the settlement agreement.

⁷⁸ The Standards Council of Canada identifies three preferred methods of reference: dated identification of a specific issue of a standard, dated identification of a specific issue of a standard as amended from time to time, and undated identification. Standards Council of Canada, above note 41, 7. The latter two accommodate subsequent changes to the standard, but reduce the regulator's control and may raise issues of impermissible delegation in some cases.

⁷⁹ U.S. Environmental Protection Agency, *Compliance-Focused Environmental Management System – Enforcement Agreement Guidance* (Denver: National Enforcement Investigations Center, U.S. Environmental Protection Agency, 2005) (on file with authors).

This is quite different from taking an EMS into account when calculating environmental penalties. First, the CFEMS guide is designed for very serious cases, in which formal enforcement proceedings have been commenced. In contrast EPs are intended for minor violations that are not serious enough to warrant formal legal proceedings. In practice it appears that the CFEMS guide has been used rarely, only for egregious or persistent violations, and that target firms resent the intrusiveness and high level of prescriptive detail of EMS consent decrees.⁸⁰

Second, the CFEMS guide is intended for cases where firms are being required to implement an EMS as a legally mandatory requirement embodied in a court injunction (albeit with the defendant's agreement), while in the EP situation firms are being offered a small reward for having already implemented an EMS voluntarily. In effect, a CFEMS is imposed as a punishment for misbehaviour whereas an EP reduction is a reward for responsible conduct. In the CFEMS situation, serious violators are being brought into line with the EPA's vision of what an EMS should be, in a highly adversarial context. In the EPs situation, minor violators are being rewarded for having voluntarily adopted a systematic approach to environmental management. The high level of scrutiny and prescriptive detail that might be appropriate for the former cases is not appropriate in the latter.

Third, the US EPA's compliance-focused EMS guide is not designed for use in conjunction with administrative penalties (the American equivalent of Ontario's EPs). American federal legislation and publicly available policies on administrative penalties are, in fact, silent on whether or how EMSs are taken into account in calculating APs. However, the EPA's policy encouraging widespread use of EMSs⁸¹ and its long-standing policy of incentives for self-policing⁸² make it reasonable to assume that EMS

⁸⁰ Personal communication by Wood with long-time member of U.S. national mirror committee on ISO 14001 (April 2007).

⁸¹ U.S. Environmental Protection Agency, *United States Environmental Protection Agency Position Statement on Environmental Management Systems* (15 Dec. 2005), online: <http://www.epa.gov/ems/position> (visited 20 Aug. 2007).

⁸² U.S. Environmental Protection Agency, *Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations Final Policy Statement*, 60 Fed. Reg. 66706 (Dec. 22, 1995).

implementation might be given some degree of favourable consideration in calculating the gravity portion of APs.

Finally, the CFEMS document emerged in a much more confrontational atmosphere than exists in Canada. The CFEMS document was initially issued in 1997, around the time the US EPA effectively walked away from the ISO 14001 negotiating table. The EPA had participated in the American mirror committee on ISO 14001 but for various reasons had become increasingly frustrated with the standards development process and the content of ISO 14001. The CFEMS document was drafted in this highly charged, adversarial atmosphere. In Canada, by contrast, representatives of the federal and provincial governments have participated actively in the national ISO 14001 mirror committee and as Canadian delegates to international ISO meetings. They have participated in these national and international EMS standards development processes since the beginning in a spirit of constructive deliberation. The antagonistic atmosphere in the U.S. has not been duplicated in Canada. In short, the American CFEMS guide and the Ontario EPs penalty reduction for EMSs are aimed at very different enforcement scenarios, emerged in different contexts and reflect different enforcement philosophies.

Efforts to incorporate EMSs into regulatory systems have not been restricted to the enforcement context. Governments in several countries have also used EMSs as elements of voluntary environmental “leadership” programs, designed to reward forward-looking firms for superior environmental performance. One of the best known of these programs is the US EPA’s National Environmental Performance Track, launched in 2000. When the Government of Ontario decided to draft its own EMS requirements from scratch rather than incorporate ISO 14001 by reference, it may have had Performance Track in mind. Performance Track does not incorporate ISO 14001 by reference but specifies its own EMS requirements. The program offers favourable publicity and modest regulatory incentives to public and private sector organizations that commit publicly to achieve beyond-compliance environmental improvement in both regulated and non-regulated areas. The US EPA made a conscious decision not to use ISO 14001 as the EMS component of the program. It wanted to accommodate the variety of EMSs in use in the US and to go beyond what ISO 14001 requires in certain respects. What is significant for this article is that while Performance Track does not

incorporate ISO 14001 by reference, neither does it replace it with a set of detailed, highly prescriptive EMS requirements like the CFEMS Guide or Ontario's draft EP regulations. Instead it describes five very general EMS elements and recognizes that the scope and formality of an EMS will vary according to the organization's size, sector, and complexity.⁸³

The Performance Track program has attracted around 450 participating organizations since its inception in 2000.⁸⁴ By contrast, Ontario's own answer to Performance Track, the Environmental Leaders Program, has attracted only five participants (four facilities and one industry association) since it was inaugurated in 2002.⁸⁵ Unlike the Performance Track, the Environmental Leaders Program sets out three pages of requirements for participating firms' EMSs, including fourteen specified elements and fairly detailed implementation requirements.⁸⁶ The detail of the program's EMS requirements and uncertainty about how they relate to established standards such as ISO 14001 are likely among the reasons for the low uptake of the program by industry.

In short, the US experience does not support Ontario's decision to write its own detailed EMS requirements from scratch for the EP regulations.

H. DON'T REINVENT THE WHEEL

Nothing we have said is meant to suggest that standards eliminate the need for regulation or that non-governmental standards-setting bodies are a substitute for democratically elected governments. All we claim is that there are compelling reasons for regulators, at every jurisdictional level, to

⁸³ U.S. Environmental Protection Agency, "Environmental Management System", National Environmental Performance Track web site, online: <http://www.epa.gov/performance-track/program/ems.htm> (visited 20 Aug. 2007).

⁸⁴ U.S. Environmental Protection Agency, "Basic Information," National Environmental Performance Track web site, online: <http://www.epa.gov/performance-track/about.htm> (visited 24 Aug. 2007).

⁸⁵ Ontario Ministry of the Environment, "Environmental Leaders Program," online: www.ene.gov.on.ca/envision/general/leadership/index.htm.

⁸⁶ Ontario Ministry of the Environment, *A Framework for Ontario's Environmental Leaders Program* (July 2004) (copy on file with the authors).

look carefully at how incorporation of voluntary standards into regulation might contribute to the achievement of public policy goals. In particular, they should consider referring to existing, consensus-based non-governmental standards rather than “reinventing the wheel” and drafting their own standards from scratch.

Not only did the Ontario government choose not to incorporate ISO 14001 by reference into its regulatory scheme, the EMS standard it devised for the draft regulations deviated substantially from ISO 14001. This brings us to our second tip for regulators.

Tip 2. Strive for consistency. If a widely accepted standard already exists on the subject, don’t create a host of unexplained inconsistencies between the proposed regulation and the standard.

At first glance the EMS described in the draft regulations was broadly consistent with ISO 14001. But even on a cursory examination, there were numerous significant discrepancies in terminology, concepts, scope and other features. For the most part these discrepancies were unacknowledged and unexplained, creating ambiguity as to how, if at all, the requirements of ISO 14001 differed from those of the regulations. The Guidance document accompanying the regulation attempted to explain some differences and similarities between the regulatory EMS and ISO 14001. However, it compounded the problem by failing to identify many discrepancies and giving the impression that the regulations and ISO 14001 were aligned more closely than their actual text would suggest. This problem, had it persisted in the final regulations, would have rendered largely counterproductive the province’s otherwise welcome effort to incorporate EMSs into its regulatory system.

A. THE IMPORTANCE OF LANGUAGE

There is no reason to believe that the problem was intentional. It appears that the government intended the regulations to be consistent with ISO 14001 and that most of the discrepancies were inadvertent. The difficulty, however, is that language is critical in international standards. Even very small, seemingly inconsequential differences in text can give rise to

inconsistency, ambiguity and uncertainty for implementing businesses, conformity assessors and interested parties. Almost every word of ISO 14001 was the subject of intense domestic and international negotiation. The resulting text reflects hard-won and often delicate compromise. What appear to be minor departures from accepted terminology may thus be perceived as major inconsistencies by EMS practitioners.

Standards are the product of countless hours of negotiation. They represent a huge investment by governments, standards development organizations, business firms, and the individuals who volunteer their time to develop them. Single words, phrases or sentences are the subject of hundreds of hours of deliberations and the resulting language, while seemingly arbitrary, may reflect a delicate compromise achieved at great cost in time and energy. ISO 14001 is full of examples. Key terms such as “prevention of pollution,” “continual improvement,” “control and influence,” “significance,” and “activities, products and services” were the subjects of prolonged debate in the initial development and subsequent revision of ISO 14001. The language ultimately agreed upon in international standards often reflects very delicate compromises that would unravel if so much as one word were changed or one comma moved.

Moreover, as a standard such as ISO 14001 spreads in the market and users, consultants and conformity assessment professionals gain experience with it, a whole set of understandings and expectations builds up as to its meaning. Even minor departures from the established terminology can inject substantial uncertainty into the market. Fear of such disruption was one of the reasons that the recent revision of ISO 14001 was restricted to clarification of the intent of the original standard and enhanced compatibility with the ISO 9001 quality management system standard. “No new requirements” was the watchword of the revision. Even if it was not carried out to the letter,⁸⁷ it reflected the importance attached by the international EMS standards community to ensuring continuity and predictability and not disturbing the delicate compromises embodied in the language of the standard.

⁸⁷ For a Canadian perspective on the differences between the 1996 and 2004 editions of ISO 14001, see CSA Technical Committee on EMS, *Guidance for Canadian Users on Changes Between ISO 14001:1996 and ISO 14001:2004* (Mississauga, Ontario: CSA, 2004) (copy on file with authors).

In light of this history, it is useful to examine the discrepancies between the Ontario government's "home-grown" EMS and ISO 14001. The home-grown EMS was set out in Schedule 1 to the draft regulations.⁸⁸

B. DISCREPANCIES BETWEEN ISO 14001 AND THE DRAFT EP REGULATION

Many of the key concepts and terms in Schedule 1 were undefined, did not appear in ISO 14001 and were unfamiliar to EMS practitioners. Conversely, many of the concepts and terms found in ISO 14001, which represent a hard-won international consensus on EMSs, were not found in Schedule 1. For example:

- The Schedule 1 EMS applied to a "plant,"⁸⁹ whereas an ISO EMS applies to an "organization". The two terms were defined differently, with the result that the physical and organizational scope of an ISO 14001 EMS could well have been smaller or larger than that of a Schedule 1 EMS. A regulated firm with an ISO 14001 EMS already in place could have found that its scope was different from that of Schedule 1. Questions could have arisen whether the firm would have to redefine the scope of its EMS to qualify for the EP reduction (which would be unlikely to merit the investment), or exclude certain aspects of its EMS that fell outside the scope of the Schedule for purposes of determining whether it qualified for the EP reduction.
- Rather than requiring an organization to identify the "environmental aspects" of its "activities, products and services," to use the internationally recognized terminology of ISO 14001, the Schedule required plants to list every "process, practice, material, product or energy use" that may affect the natural environment. While the Guidance document attempted to reassure readers that this was "equivalent to the process identified in ISO

⁸⁸ Draft EP Regulation, *supra* note 8, Schedule 1.

⁸⁹ Draft EP Regulation, *supra* note 8, s. 3.

14001 for identifying aspects & significant aspects,”⁹⁰ this was far from clear. It was unclear, for instance, whether “process, practice, material, product or energy use” includes services, which must be included in an ISO 14001 EMS. The identification of environmental aspects and impacts and the determination of their significance were among the most difficult and controversial issues in the revision of ISO 14001.⁹¹ So much energy was expended in reaching an international consensus on the appropriate language that it is safe to say that any departure from it would have occasioned considerable anxiety among thousands of organizations, consultants and auditors that use ISO 14001.

- Schedule 1 required plants to identify every process, practice, material, product or energy use that may cause an “adverse effect,” whereas ISO 14001 speaks of environmental “impacts.” While this may seem like splitting hairs, in fact “adverse effect” is a term of art in Ontario environmental legislation⁹² which does not mean the same thing as ISO 14001’s “adverse impact” in all circumstances.
- The emergency preparedness and response provisions of Schedule 1 were aimed specifically at “spills,”⁹³ whereas those in ISO 14001 are aimed at all environmental emergencies; and
- Schedule 1 referred to “personnel,”⁹⁴ which may not have the same meaning as ISO 14001’s term “persons working for or on behalf of the organization”. This was another hotly contested phrase in the revision of ISO 14001 due to the interpretation by some stakeholders that it automatically included suppliers.

⁹⁰ Draft EP Guidance, *supra* note 8, 48.

⁹¹ This issue was so contentious during the recent revision process that its elaboration was confined to ISO 14001’s companion guidance standard, ISO 14004. Developing agreed guidance on “aspects, impacts and significance” consumed almost three years, hundreds of pages of comments, and untold volunteer hours. Johannson, who chaired the ISO task group on this issue, tallied more than 200 hours alone managing the international negotiation process.

⁹² “Adverse effect” is a legislatively defined term of art with a very particular meaning in Ontario. *Environmental Protection Act*, R.S.O. 1990, c. E.19, ss. 1, 14.

⁹³ Draft EP Regulation, *supra* note 8, Schedule 1, s. 10.

⁹⁴ *Ibid.*, ss. 2, 12, 15.

Moving from scope and terminology to the content of EMS requirements, several of the requirements of Schedule 1 differed from those of ISO 14001, usually without explanation. In some cases the requirements of Schedule 1 appeared to be weaker than those of ISO 14001. Three examples will suffice:

- ISO 14001 seeks to promote environmentally positive outcomes by requiring an organization to identify significant environmental aspects and impacts within the scope of the EMS, both adverse and beneficial. Schedule 1 only required plants to identify those with adverse effects.⁹⁵
- Schedule 1 was limited to environmental aspects over which the plant has “control,”⁹⁶ while ISO 14001 applies both to those the organization controls and those over which the organization determines it has an influence. ISO 14001 has the potential to reach farther up or down the value chain than Schedule 1. The question of “control and influence” was another controversial drafting issue in the initial development of ISO 14001 and throughout its revision. The delicacy of the compromise reflected in the language of ISO 14001 on this issue cannot be overemphasized.
- The provisions of Schedule 1 on training, awareness and competence⁹⁷ reflected an outdated approach, borrowed from the first edition of ISO 14001, focused on task-specific formal training. This approach was rejected explicitly in the recent revision of ISO 14001 and replaced with a more holistic approach that emphasizes competence more broadly and the importance of educating personnel as to why conformity with the EMS matters and what might happen when established procedures are not followed.

⁹⁵ Ibid., s. 3.

⁹⁶ Ibid.

⁹⁷ Ibid., s. 12.

The EPs guidance document neither acknowledged these apparent downward departures from ISO 14001 nor offered any explanation for them.

There were also discrepancies between Schedule 1 and ISO 14001 in relation to EMS audits. Schedule 1 would have required a plant's EMS to be audited against the requirements of the regulation rather than against a standard such as ISO 14001. This would have blurred the line between EMS audits and regulatory compliance audits and led to confusion in the environmental auditing community. EMS auditors are trained to conduct EMS audits, against recognized EMS standards. The draft regulations would have required a regulatory compliance audit, to be conducted against an EMS document that differed significantly from the EMS standards with which EMS auditors are familiar. It was not clear who would accredit auditors to conduct these audits, what training auditors would need, nor whether their insurers would be willing to provide coverage for such audits. It was possible that the private market would be unwilling or unable to supply the certifications contemplated by the regulations. This issue was not addressed in the draft regulations or guidance. It appears that research commissioned by the government had not investigated these points.

Finally, the Schedule 1 EMS included requirements that went beyond the requirements of ISO 14001. The government explicitly acknowledged two of these additional requirements. First, Schedule 1 required a policy commitment to "pollution prevention" (also known as "P2"), i.e., the use of "processes, practices, materials, products and energy that avoid or minimize the creation of pollutants and wastes at the source,"⁹⁸ which is stronger than ISO 14001's requirement of a commitment to "prevention of pollution" (POP). POP is defined as including recycling and end-of-pipe pollution control. This was another hotly debated issue within Canada and in the international forum, pitting Europe against the United States, and developed against developing countries. Second, Schedule 1 required an external audit of the EMS and a certification by the external auditor that the regulatory EMS meets all the requirements of Schedule 1.⁹⁹ As ISO

⁹⁸ *Ibid.*, s. 1.

⁹⁹ Draft EP Regulation, *supra* note 8, Schedule 1, s. 14.

14001 is voluntary, it does not require external audits or third party certification. It is up to the adopting organization to choose how to demonstrate its conformity to the standard. ISO 14001 recognizes four options: self-declaration, second-party assessment (by a customer or other interested party), confirmation of self-declaration by an external party, and third-party certification. We will have more to say about these options in the next section.¹⁰⁰ For now we simply wish to note the inconsistency between Schedule 1 and ISO 14001.

In addition to the two additional requirements acknowledged by the government, there were several it did not acknowledge:

- An increased emphasis on documentation and written procedures.¹⁰¹ This was diametrically opposed to the five years of effort leading to the international consensus that documentation requirements in ISO 14001 had to be reduced to make EMSs more accessible to small organizations and further shift the focus toward results rather than paperwork.
- A requirement to rank all environmental aspects based on the significance of their potential adverse effect.¹⁰² ISO 14001 requires organizations to determine significant environmental aspects. It does not require organizations to engage in an explicit ranking exercise. Determination of significance relies heavily on judgment and informed discretion, and is affected by a host of variables.¹⁰³ Requiring organizations to rank their significant aspects would add little value.

¹⁰⁰ See n. 107 and accompanying text.

¹⁰¹ Almost every section of Schedule 1 required the development of written procedures. Draft EP Regulation, *supra* note 8, Schedule 1, *passim*.

¹⁰² Draft EP Regulation, *supra* note 8, Schedule 1, s. 3.

¹⁰³ CSA published a guidance document on this topic. Canadian Standards Association, *Plus 1145: A Guide to Identifying Significant Environmental Aspects* (Rexdale, Ontario: CSA, 1999).

- The requirement that all environmental targets be quantifiable,¹⁰⁴ whereas ISO 14001 recognizes that this is not always practicable.
- Frequent use of words such as “every,” “all,” “any,” or “each,” which would result in nonconformity if even one event or item is missed.

To recapitulate, the government’s intent was not to create an EMS inconsistent with ISO 14001. But that is, in fact, what it did. It drafted an entirely new EMS specification that was full of (admittedly inadvertent) discrepancies in language, concepts, terminology and requirements compared to the leading internationally recognized EMS standard. And it failed to explain or acknowledge most of these discrepancies. This could only be expected to lead to confusion, anxiety and resistance among regulated industries and environmental management professionals.

We are not suggesting that governments should simply swallow non-governmental voluntary standards lock, stock and barrel. Far from it: there are many circumstances when public policy legitimately demands more than what voluntary standards have to offer. This brings us to our third tip.

Tip 3. Make any extra requirements clear. If an existing widely accepted standard does not, on its own, meet all the public policy goals of the proposed regulation, identify as clearly as possible how the standard is deficient and what more is required to meet public policy objectives.

As we noted in the previous section, to qualify for an EP reduction, regulated firms would have had to meet additional requirements in their EMSs beyond what is required by ISO 14001. This is not remarkable in itself. It is a government’s prerogative to ask firms to do more than just demonstrate conformity to a voluntary standard in return for regulatory benefits. They may, for instance, want firms to put greater emphasis on pollution prevention (versus POP), environmental performance

¹⁰⁴ Draft EP Regulation, *supra* note 8, Schedule 1, s. 4.

improvement, public transparency or community consultation than ISO 14001 requires. Many firms already exceed both ISO 14001's requirements and governments' expectations in these or other areas, because this enables them to improve their efficiency or competitiveness, increase productivity, satisfy customer or trade association requirements, improve community relations, or fulfil their own commitments to environmental leadership. At the same time, incentives and performance vary greatly across firms and sectors, and firms' private goals may not correspond with public policy goals. Governments may find existing voluntary standards insufficient to fulfil the public policy goals they wish to pursue via regulation.

This brings us to the critical point. When an existing widely recognized standard does not, on its own, meet all the regulator's public policy objectives, the regulator should specify any extra or different requirements clearly, so that firms, auditors, regulators and other interested parties can readily identify what is expected. They should also provide a rationale for the extra or different requirements, so that firms, auditors, and others can assess the value of the "extra mile". For the most part the Ontario government failed to do either of these things when promulgating its draft EP regulations.

A. ISO 14001 PLUS...WHAT?

We have already laid out what we identified as the extra requirements of the draft regulatory EMS compared to ISO 14001. Two of these were obvious and were acknowledged explicitly in the accompanying guidance document. These were a strengthened commitment to pollution prevention and a requirement for an external third-party audit and certification. Others were implicit, unacknowledged and uncertain in scope and effect.

The only extra requirement for which the government publicly offered a rationale was the commitment to pollution prevention. The guidance document accompanying the regulations explained the choice of pollution prevention rather than ISO's broader "prevention of pollution" as follows:

pollution prevention is a process that regularly and systematically examines root causes of all wastes generated and seeks to eliminate

the causes of pollution rather than treating the symptoms. Pollution prevention is the preferred approach at the top of the environmental management hierarchy, followed by re-use, recycling, control, treatment, disposal, with remediation and clean-up being the least preferred option.¹⁰⁵

The government of Ontario was not alone in insisting on a commitment to pollution prevention in return for granting regulatory benefits to firms with EMSs. Public authorities in several jurisdictions, including the governments of Canada, Mexico and the United States, have specified this as an expectation for the use of EMSs to achieve public policy goals.¹⁰⁶

The government offered no rationale, however, for the requirement of an external audit and certification. ISO 14001 does not require an external audit or independent third-party certification of conformity. It does not specify the frequency of internal audits, nor does it state that all elements of the EMS must be reviewed in every audit. ISO 14001:2004 recognizes four conformity assessment options, designed to suit the varying needs of the market. Some have a shorter audit cycle than others. An organization may demonstrate conformity to ISO 14001 by:

- 1) making a self-determination and self-declaration, or
- 2) seeking confirmation of its conformance by parties having an interest in the organization, such as customers, or
- 3) seeking confirmation of its self-declaration by a party external to the organization, or
- 4) seeking certification/registration of its environmental management system by an external organization.¹⁰⁷

Option 1 is a first-party self-assessment process. Option 2 is an assessment by someone having an interest in the organization, commonly referred to as a second-party or supplier audit. Options 3 and 4 are

¹⁰⁵ Draft EP Guidance, *supra* note 8, 52-53.

¹⁰⁶ North American Commission for Environmental Cooperation, *Improving Environmental Enforcement and Compliance: 10 Elements of Effective Management Systems* (Montreal: Commission for Environmental Cooperation, 2000) 3.

¹⁰⁷ ISO 14001:2004, Introduction.

performed by independent external parties. Option 3 was added in 2004 largely to accommodate the EnviroReady Report process,¹⁰⁸ in which a professional accountant with specific training is recognized to confirm the presence of the ISO 14001 elements. This is cheaper and more streamlined than third-party certification. It was created specifically to address the needs of SMEs by making external confirmation of ISO 14001 implementation attractive and feasible for them. The EnviroReady Report process is focused exclusively on ISO 14001; it was not designed to be applied to other EMSs. Option 4 is formal third-party certification or registration by an accredited ISO 14001 certifier. This is typically the costliest of the four options.¹⁰⁹ Most SMEs have shunned it for reasons of cost and culture.¹¹⁰

The draft regulations only appeared to contemplate third-party certification (Option 4), despite the barriers just discussed. No rationale was offered publicly for this restrictive and costly approach, which would effectively have disqualified the vast majority of Ontario firms from eligibility for the EMS-based EP reduction.¹¹¹ It is possible to imagine reasons for the government's position. For instance, it may have believed that only formal third-party certification would provide adequate verification of firms' EMSs. This is a widely held but controversial view. Many NGOs and governments insist on third-party certification as the only effective guarantee of the credibility of firms' claims about implementation of voluntary environmental initiatives. This insistence may be well-founded in specific cases, but it may be misplaced in others. First, other forms of conformity assessment may provide adequate

¹⁰⁸ "EnviroReady Report" is a registered trademark of _____. Information on the process is available at www.14000registry.com. Johansson is the coordinating lead person responsible for the development of the EnviroReady Report process and has a commercial interest in it.

¹⁰⁹ See Table 2 and accompanying discussion, below.

¹¹⁰ Auditors in some countries have offered clustered ISO 14001 audits, which bring the cost per company down by auditing several organizations at once. We are unaware of any examples of this in Canada.

¹¹¹ Granted, the EPs scheme is currently restricted to a small number of large industrial facilities for many of which formal EMS certification is not a huge financial obstacle, but the government plans to expand the scheme to other facilities and sectors over time.

credibility, depending on the circumstances. There is a tendency to assume a binary choice between self-declaration and third-party certification, overlooking the existence of the other options mentioned earlier. Second, many firms find that any credibility gains they obtain from third-party certification are not worth the high cost. Third, accounting scandals such as Enron and Worldcom remind us that third-party auditors themselves may not always be as objective and independent as we would like. ISO 14001 has not been immune from such problems. Concerns have occasionally been raised about the credibility of some ISO 14001 registrars or certificates. The same is true of other voluntary certification systems.

Our goal here is not to settle the debate once and for all, but to note that the Ontario government failed to articulate any rationale for demanding third party certification. Nor did it acknowledge the associated trade-offs such as the higher cost to regulated firms. As a result it set a precedent that effectively excluded SMEs.

The European EMAS regulation is an interesting contrast. It incorporates ISO 14001 as its EMS specification, and specifies separately the extra requirements the European Commission and Parliament consider necessary for facilities participating in this voluntary scheme.¹¹² We are not suggesting that Ontario should adopt the same requirements, only that it follow the example of being clear and up-front about what additional requirements above and beyond ISO 14001 are required to achieve public policy goals.

While it may not have been the government's intention to create a system that is inconsistent with ISO 14001, this would have been the result of the draft EP regulations. The creation of a parallel, partially overlapping EMS specification with different scope, terminology and requirements that deviate from the standard could have led to a number of potential scenarios. First, the market might simply have ignored the regulatory

¹¹² See European Commission, "EMAS – The Eco-Management and Audit Scheme," http://ec.europa.eu/environment/emas/index_en.htm (visited 24 Aug. 2007). The main differences between EMAS and ISO 14001 are summarized at http://ec.europa.eu/environment/emas/tools/faq_en.htm#difference (visited 24 Aug. 2007).

EMS. The detailed EMS specification would languish in the law books, but no firms would attempt to implement it or claim the associated penalty reduction. This would have been the most likely outcome of promulgation of the draft regulations, in our view. It would have been a poor return for the public purse indeed. Second, in the unlikely event that the market took the regulatory EMS seriously, the result would have been uncertainty, confusion and extra cost for regulated firms. At a minimum it would have added substantial extra costs for regulated facilities, regulatory authorities and auditors, in all likelihood exceeding the rather modest 5% penalty reduction.¹¹³ Third, the confusion and anxiety around the regulatory EMS might have put some firms off EMSs and ISO 14001 altogether. This would have been an entirely counterproductive result.

The implications of departing from an internationally accepted standardized approach to EMS would not necessarily be contained to the province of Ontario. The draft standard drew attention and scrutiny from European countries, making it a potential trade issue. Ontario was thrust inadvertently before an international audience, which awaited the verdict of this particular twist on the standard with considerable interest.

B. A MISSED OPPORTUNITY

The development of Ontario's EP regulations presented a welcome and long-overdue opportunity for a serious public conversation about the role of ISO 14001 in the pursuit of public policy goals, and the relationship between voluntary standardization and official regulation generally. This would have been a good chance to articulate what should be expected from regulated entities in exchange for favourable regulatory treatment.

¹¹³ The incremental costs of complying with the EMS component of the EP Regulations would likely have been substantial. An external audit of a plant against the EMS outlined in Schedule 1 would include more and different criteria than an audit that tests a user's conformance to ISO 14001. There would also be an increase in costs related to the external audit and the possibility that professional auditors would refuse to offer auditing services against this EMS. These costs would likely far outweigh the benefits of complying with Schedule 1, namely a 5% reduction in the gravity component of the EP. As a result all the work the government put into drafting the EMS component of the proposal would have been for naught, because no companies would have gone to the expense and uncertainty of implementing a Schedule 1 EMS.

Such a conversation should have considered, among other things, how the answers to these questions might vary with different regulatory contexts. What is appropriate in an environmental enforcement context (as in the case of EPs) may not, for instance, apply to voluntary environmental leadership programs such as the US EPA's Performance Track or Ontario's Environmental Leaders program. What works for large regulated entities may not work for SMEs. And what is appropriate for one regulated sector may not be appropriate for others.

Such a conversation should also have considered the mounting empirical evidence about the effects of EMSs on environmental performance, legal compliance, financial results and competitiveness.¹¹⁴ Furthermore, it should have considered the inevitable trade-offs involved in any decision about departing from existing consensus-based non-governmental standards. Extra requirements should be justified not only in terms of the public policy benefits they promise to achieve, but also against the competing benefits of uniform standards and a well-functioning national and international standards system. They should also consider the potential negative impacts of departing from internationally accepted standards on business certainty and competitiveness.

The government did not take this opportunity. Instead of taking the objections it had received as a reason to engage in a serious discussion of the government's public policy objectives and ISO 14001's potential contribution to their realization, it simply rewrote the draft regulations to remove the detailed EMS in Schedule 1 and incorporate ISO 14001 and Responsible Care as the regulatory standards. While this was probably welcomed by many stakeholders in industry, it was no substitute for the serious reflection that is needed on the role of ISO 14001 and other voluntary EMS standards in regulation. We hope this article spurs interest among relevant governments (not least Ontario's) to devote the time and resources to foster this dialogue.

Here is what the final Ontario regulations say about the EP reduction for an EMS:

¹¹⁴ E.g. Prakash & Potosky, above n. 7.

17. The Director shall grant a reduction to the gravity component equal to 5 per cent of the gravity component if, at the time of the contravention, the regulated person had in place an environmental management system for the plant that was audited within three years before the contravention, and the audit confirmed one of the following:

1. That at the time of the audit,
 - i. the environmental management system was certified as meeting the standard set out in the document entitled “Environmental management systems –Requirements with guidance for use” and designated as CAN/CSA-ISO 14001:04, published by the Canadian Standards Association, as amended from time to time, by an environmental management systems registrar that has been accredited by,
 - A. the Standards Council of Canada, or
 - B. an accreditation body outside of Canada that is a signatory to the International Accreditation Forum Multilateral Recognition Arrangement, and
 - ii. the certification is recorded in a registry maintained by the registrar.
2. That at the time of the audit, the environmental management system was determined to be compliant with the standard set out in the document referred to in paragraph 1 by a person who,
 - i. is not an employee at the plant or a contractor who routinely works at the plant,
 - ii. audits according to a code of practice that conforms with the document entitled “Guidelines for quality and/or environmental management systems auditing” and designated as CSA/ISO 19011:2003, published by the Canadian Standards Association, as amended from time to time, and
 - iii. is certified by,
 - A. an auditing certification body that has been accredited by the Standards Council of Canada, including the Canadian Environmental Certification Approvals Board, or

- B. a body outside of Canada that is a signatory to the International Accreditation Forum Multilateral Recognition Arrangement.
3. That at the time of the audit, the environmental management system was verified as meeting the requirements [of the Responsible Care Program] published by the Canadian Chemical Producers' Association, as amended from time to time, by a person authorized by the Canadian Chemical Producers' Association to audit environmental management systems.¹¹⁵

Although the language is convoluted, its effect is simple. To qualify for an EP reduction, a plant must have an EMS that is:

- 1) certified to ISO 14001 by an accredited ISO 14001 registrar,
- 2) audited by an independent external auditor who determines it to conform to ISO 14001, or
- 3) verified by an authorized Responsible Care verifier to meet the requirements of the chemical industry's Responsible Care program.

Gone is the detailed, home-grown EMS specification with all the discrepancies and ambiguities that differentiated it from ISO 14001. Gone is the requirement to audit the EMS against the regulation, which would have blurred the distinction between a regulatory compliance audit and an EMS audit. That much is to be congratulated.

But the government's wholesale retreat from almost all elements of the draft EMS specification left several questions unanswered. Why did it abandon the requirement for a commitment to pollution prevention? Presumably it had given this issue serious thought and had cogent reasons for this departure from ISO 14001. The same might be asked of the other "ISO 14001-extras" that were dropped from the final version, including the emphasis on written procedures, the requirement to rank-order all significant environmental aspects, and the requirement to quantify all environmental targets.

¹¹⁵ O. Reg. 222/07, s. 17.

On the other hand, why did it retain the requirement for an external audit or ISO 14001 registration? The final regulations went some way toward meeting the objections discussed earlier, but stopped short of accommodating conformity assessment options that are accessible to the vast majority of SMEs. While the regulations were geared to large, point-source polluters, they set a precedent that will do nothing to help SMEs. In short, instead of specifying more carefully how its vision of an acceptable EMS for purposes of the EP regulations differed from the requirements of ISO 14001, at the eleventh hour the government simply abandoned most of the additional requirements it had initially proposed, passing up an opportunity for a much-needed conversation about the role of voluntary EMS standards in regulation.

Perhaps some of this difficulty could have been avoided had the government taken different steps in the run-up to this regulatory initiative. This brings us to our fourth tip.

Tip 4. Connect with the experts. Consult relevant standards development committees when developing regulations

The Ministry of the Environment engaged in a year-long public consultation process on EPs between September 2005 and September 2006.¹¹⁶ According to the government, the consultation process had five phases. Phase 1 consisted of private “pre-consultations” with key industry and non-industry stakeholders. Phase 2 featured broad-based consultations across the province and ended with identification of key issues for future work. Phase 3 involved the distillation and reporting of stakeholder input and establishment of a MOE-stakeholder working group to hold focused discussions on the key issues identified in Phase 2. The working group was selected based on input from industry associations,

¹¹⁶ Ontario Ministry of the Environment, above n. 25. In addition, the government commissioned research into the status of EMS adoption in Ontario and various market participants’ views of EMS standards. The researcher must have consulted a very limited range of sources, because the research does not appear to have turned up most of the information and concerns identified in this article, which were well known in the EMS standards community.

community-based organizations and ENGOs that had been involved in the earlier consultations. While in theory all stakeholder groups were to be represented equally, the majority of members came from large regulated industries.¹¹⁷ In Phase 4, the MOE-stakeholder working group worked intensively over several months to explore issues, review best practices and make detailed comments and recommendations. Finally, in Phase 5, the government reviewed and analyzed the working group's comments and recommendations. It then prepared the draft regulations for posting on the Environmental Bill of Rights (EBR) registry.

At no point in this process did the government notify or consult the relevant organs of the National Standards System – in particular, the CSA's multi-stakeholder committee responsible for development and maintenance of national environmental management systems standards. No formal channels of communication were opened between the government and the committee until after the draft regulations were released for public comment, when Ministry officials accepted the committee's invitation to meet and discuss the EMS component of the regulations.

This was probably an inadvertent oversight, the product of a lack of awareness in the relevant government agencies of the existence and role of the National Standards System and the EMS committee. But the oversight was serious since it deprived the government of what was undoubtedly the country's largest collective reservoir of expertise on EMS standards development. It was also inconsistent with one of the fundamental principles of the Canadian standards system, a principle shared with most other jurisdictions: that there should be ongoing cooperation and communication between standards development bodies and public authorities, especially in subject areas on which regulation and standardization overlap. As the Standards Council of Canada recently stated:

¹¹⁷ The working group had eight members representing large industrial polluters, four ENGO members, one local community group representative, one member representing health units and one MOE official who acted as chair. Ontario Ministry of the Environment, above n. 25

The effective development of a standard suitable for incorporation by reference in a legislative instrument requires that a cooperative effort between the regulatory authority and the standards development committee be established from the outset.¹¹⁸

To reap the many benefits of consensus-based non-governmental standards development activities and avoid the many potential pitfalls described in this article, governments need to ensure that their key policy development and legislative drafting personnel are aware of relevant standards development committees. They need to consult with those committees when developing regulations on subjects on which standards exist. This should be a routine part of public policy development.

Ad hoc, project-specific consultation is only one way of engaging with and reaping the benefits of the voluntary standards development process. Another is to participate actively in the work of standards development committees.

Tip 5. Get involved in voluntary standards development. Participate in the work of relevant standards development committees to keep abreast of relevant issues and influence the content of standards on an ongoing basis.

The Standards Council of Canada puts it simply:

Representatives of interested regulatory authorities should be active participants on the standards development committee. If for reasons of balance, time, or distance this is not possible, they should be associate or corresponding members who can make comments and provide input.

For several years the Ontario Ministry of the Environment had an active participant on the national EMS standards committee, but this participation lapsed around 2000. Periodic entreaties by the committee to renew the Ministry's participation were not acted upon. Other government

¹¹⁸ Standards Council of Canada, *supra* note 41, 4.

officials have also sat on the committee, including representatives of the federal government, other provinces and municipalities. Because of the “balanced matrix” rules for the composition of standards committees,¹¹⁹ it would not be possible to accommodate representatives of all potentially interested government bodies. This does not necessarily prevent them from participating as observers, receiving committee correspondence, or obtaining periodic updates.

Participating in the work of standards development committees offers numerous potential advantages to government officials. These include keeping abreast of the latest developments and innovations in the marketplace, and influencing the content of standards in directions consistent with public policy goals. One of the biggest obstacles to government participation in standards development bodies is limited resources. This was due mainly to the massive budget and staff cuts that were experienced in the neo-conservative atmosphere of the 1990s in many countries. These cuts were especially severe in environmental ministries. In these circumstances many government officials were simply spread too thin to take advantage of participation in standards committees. Nonetheless, some of the deepest cuts have been restored and many government agencies are recovering from their direst straits.

If the concept of smart regulation is to be taken seriously, with its emphasis on harnessing non-governmental resources and fostering the reflexive, self-regulatory capacities of regulated communities in the service of public goals, governments need to put a higher strategic and operational priority on participation in the work of voluntary standards development.

Tip 6. Consider the needs of small business. Design regulations in a way that addresses the special characteristics and challenges of the SMEs that represent around 98% of the business community.

With this we come to the last of our tips and what is perhaps the toughest challenge of smart regulation: to design regulation in a way that

¹¹⁹ See above, n. 57-60 and accompanying discussion.

effectively enlists small business in the quest for sustainable development. Both governments and standardization bodies have failed to engage small business. For small business this is a double-edged sword. They need the help, but they don't necessarily want the attention. Yet, to resolve the most pressing environmental problems of the contemporary period and accelerate the transformation toward a sustainable society, it will be necessary to engage and mobilize small business.

Neither the draft nor the final environmental penalties regulations make any effort to address small business. As mentioned, the Ontario EPs scheme only applies to large facilities in nine industry sectors that discharge contaminated effluent to a surface water course or private effluent treatment plant. We are not suggesting that the solution is to extend the EPs regime to all regulated facilities in the province, big and small. But the solution must involve more than simply ignoring small business. We admit that this might sound like the pot calling the kettle black, because the environmental standardization community has also failed to respond to the needs and challenges of small business. One could say that they have failed to understand the needs of their customer (a mark against them from a quality management perspective), but they do it consistently.

A. THE SLEEPING GIANT OF THE SUSTAINABILITY STORY

Small business is the sleeping giant of the sustainability story. It has been largely ignored by environmental regulation. On the one hand, small businesses should be happy about this, since regulatory compliance tends to be considerably more expensive for small than large businesses on a per capita basis.¹²⁰ Yet, the majority of Canadian small businesses believe in sustainability.¹²¹ This giant is starting to stir and is likely to come fully awake soon. And when it does awaken – no matter in which direction it

¹²⁰ Laura Jones, *et al.*, *Rated R: Prosperity Restricted by Red Tape* (Toronto: Canadian Federation of Independent Business, 2005), online: www.cfib.ca/research/reports/RatedR.pdf.

¹²¹ Matthew Armstrong *et al.*, *Achieving Eco-Prosperity: SMEs' Perspectives on the Environment* (Toronto: CFIB, 2007), online: www.cfib.ca/research/reports/tr3039.pdf.

moves – it is likely to have an influence on environment and society that belies its low profile. In Canada, small businesses rarely grab media headlines. They may not be much in the public eye, but they are well connected to the community. They may not have global brands to protect, but their customers trust them more than they do national or multinational chains. Small businesses cannot afford to engage in massive publicity exercises, but they have their networks. They typically do not engage in large scale political lobbying. While associations exist to lobby on behalf of small business,¹²² in most countries these are dwarfed by the number and resources of big business lobbyists. SMEs have been largely ignored as the silent majority, and that is a serious error for both regulators and standards developers. SMEs are incredibly numerous, widely dispersed throughout society, and very closely integrated into the local fabric of the communities in which they operate. We ignore them at our peril.

Small and medium-sized enterprises (SMEs) make up the vast majority of business organizations in the world. In many developing countries they dominate the local economy. Even in advanced industrialized countries where large business firms appear prevalent, SMEs represent an overwhelming majority of business organizations and account for a substantial portion of economic activity. They employ a great number of Canadians. SMEs make up between 95% and 98% of Canadian businesses (or 1.04 million of Canada's approximately 1.07 million legally constituted employer businesses),¹²³ and contribute between 45% and 60% of Canada's Gross Domestic Product.¹²⁴ Canada has a very large micro-enterprise base – i.e, legally constituted employer enterprises with fewer than five people. In addition, there are another 1.2 million business entities in Canada without full-time payroll. These may be cottage industries, seasonal ventures or simply one-person outfits, augmenting their human resource needs with part-time or contract help. Small business represents the foundation of a national economy, and its viability has profound impacts on the health and prosperity of the national

¹²² In Canada, the Canadian Federation of Independent Business is the principal voice for small business, online: www.cfib.ca.

¹²³ Industry Canada, above n. 14.

¹²⁴ The range varies from source to source and depends partly on the definition of small business used.

economy. Without small business, no economy can evolve to become sustainable.

The vast majority of environmental regulation in Canada and many other countries is simply not designed for or applied on a substantial scale to small business. And when it is applied to small business, small business bears a disproportionate share of the cost of compliance. Research conducted by the Canadian Federation of Independent Business (CFIB) indicates that regulation imposes a higher financial burden on small business than their larger counterparts (see Table 1). This results in an uneven playing field and unequal costs as a fraction of annual turnover.

Number of employees	Annual compliance costs per employee	Low range	Upper range	Estimated Annual Turnover	Compliance cost as % of Annual Turnover
1-4	\$5,317	\$5,317	\$21,260	\$250,000 to \$1,000,000	2.13%
5-19	\$2,844	\$14,222	\$54,036	NA	
20-49	\$1,922	\$38,444	\$94,178	Under \$5,000,000	.77% to 1.88%
50-99	\$1,422	\$71,100	\$140,778	NA	
100 +	\$1,104	\$110,400	\$5,164,512	\$19,331,009,000	.27%

Table 1. Comparative Financial Burden of Regulation on Canadian Businesses
Source: Extrapolated from data contained in Laura Jones *et al.*, *Rated R: Prosperity Restricted by Red Tape* (Toronto: CFIB, 2005).

Conventional environmental regulation typically disregards the organizational and cultural characteristics of small business. The vast majority of small businesses do not have formalized management systems, but operate informally with heavy reliance on personal knowledge, memory and informal interpersonal networks based on trust. Multi-tasking is pervasive, with one or a few individuals performing roles that would be divided among multiple people or divisions in large firms. Initiative, adaptability and self-reliance are at a premium in this atmosphere. A very high value is placed on autonomy and independence. Governments and laws tend to be viewed with a high level of skepticism. Government officials and regulations are typically resented as unwelcome intrusions at worst, or ignored as irrelevant at best.

Small businesses are not against environmental protection. They are typically supportive of good environmental laws; it's just that many haven't seen a good example. Small business owners are less likely than large firms to establish constructive, ongoing, long-term relationships with environmental licensing and inspection officials. They are far less likely to engage in lobbying of policy makers than are large firms. They operate on ultra slim margins. The profit motive often plays a smaller role in SMEs than in larger enterprises. Many SMEs exist simply to procure a modest living for their principals. Others exist because their principals had no other choice than to strike out on their own, having been made redundant by downsizing or closure of larger private or public sector entities.

Command regulation, with its emphasis on prohibition, detailed technical prescriptions and quasi-criminal enforcement, is ill-suited to the informality of small business. It tends to aggravate the antagonism toward government latent in many small business owners, leading to greater resistance rather than voluntary compliance.

While there have been increases in recent years in transparency and public participation in environmental law, law-making processes remain largely inaccessible to SMEs and ordinary citizens. This is even truer of regulations than statutes. While statutes must be debated, passed and amended publicly by elected representatives in legislatures, regulations and other subsidiary legislative instruments are developed, approved and amended by the executive branch of government. In Canada and other jurisdictions with parliamentary systems of government, the party holding the most seats in the legislature controls the executive. This has led to a tendency to enact very vague, general and discretionary environmental statutes that leave most of the details to be worked out via regulations and administrative decision-making. This has often been accompanied by a tendency to work out the content of environmental regulation through closed-door negotiations between governments and major industrial polluters.¹²⁵

¹²⁵ E.g. Michael Howlett, "Policy Instruments and Implementation Styles: The Evolution of Instrument Choice in Canadian Environmental Policy" in Debora VanNijnatten and Robert Boardman, eds., *Canadian Environmental Policy: Context and Cases* (Toronto: Oxford University Press, 2002) 25.

Governments have made increasing use of public notice and comment procedures in recent years, but this is still not as common or robust as one might hope. More frequently, the key discussions still occur in closed door consultations with industry and a small range of other organized stakeholders. These consultations are confined to those stakeholders who understand where and when to intervene and have the necessary resources to do so. Small business by and large has neither the time nor the resources to engage in these processes. As a result, regulations are unlikely to overcome these hurdles unless an easier access process is developed. Even if design challenges are overcome, at the end of the day their application by regulators knowledgeable about how small business operates must be addressed. Only when both these aspects are addressed will Canada's regulatory scheme be sensitive to the needs and resource constraints of small business.

B. THE SMALL BUSINESS SUCCESSION CRISIS

These problems with environmental regulation do not exist in a static historical setting. Demographic trends in Canada have conspired to create an impending crisis in the small business community and an unprecedented opportunity to help this sector embrace sustainable business practices. The Canadian small business community is aging. Sixty-six percent of Canada's small business owners intend to retire over the next ten years.¹²⁶ This translates into approximately 680,000 companies. Given the sheer number of companies involved in this transition, this represents a huge socio-economic upheaval. Approximately 37% of Canadian small business owners want to sell their businesses on the open market and another 26% want to sell or transfer their businesses within the family in the near future. 4% intend to wind down their business. A further 26% have not figured out any kind of exit vision. The remaining 7% responded "other", which may or may not indicate that they

¹²⁶ Doug Bruce, "The Context: Turning Risks into Opportunities" in Canadian Institute of Chartered Accountants, *Succession Planning Toolkit for Business Owners* (Toronto: Canadian Institute of Chartered Accountants, 2006).

have planned their succession.¹²⁷ Between these last two categories, this means that over the next ten years up to 178,000 Canadian small businesses are uncertain about what to do

We are entering a protracted buyer's market. It will continue for a period of ten to eighteen years. In the present era, when environmental protection is a top of mind public issue, evidence of a well managed company will include environmental management and quite possibly environmental performance front and centre on a buyer's checklist.

The presence of a robust and credible environmental management system (EMS) could become a screening tool for a prospective buyer or even a deciding factor when other factors are equal. So why are small businesses not racing to adopt ISO 14001? Let us take a bird's eye view of the situation.¹²⁸

C. SMALL BUSINESS AND ISO 14001

First, most small business owners have not even heard of the standard.¹²⁹ Of those who have heard, the standard is marketed to them as something to be adopted for third-party certification. Certification, however, is a large

¹²⁷ Doug Bruce and Derek Picard, *Succession Can Breed Success; SME Succession and Canada's Economic Prosperity* (Toronto: CFIB, 2005), online: www.cfib.ca/research/reports/rr3007.pdf.

¹²⁸ While this situation is discussed in the context of Canada, the challenge of succession is not exclusive to that country, nor is the failure of ISO to understand the nature and culture of its potential customer, small business. According to the International Finance Corporation, there are approximately 143 million small businesses in the world. International Finance Corporation, above n. 65. The issue of succession may not be pertinent to some transition economies or developing countries. Other related drivers, like the trade impact of large-scale adoption of ISO 14001 or supply chain pressures, may pull small business in these countries toward the standard.

¹²⁹ The Canadian Federation of Independent Business has surveyed its members' awareness of ISO 14001 a number of times. Johansson's firm, E2M, has conducted periodic surveys on EMS and SMEs since 1994. The results are consistent. The vast majority of small business owners, like the general public, has either not heard about ISO 14001, or doesn't recall it.

expense for small business as a fraction of annual turnover (see Table 2). The price tag alone tends to shut the door on their interest.

Organization size/sales	Initial document review	Follow-up reviews	Number of employees	Total cost per employee	Minimum total cost as percentage of sales
Small: \$500,000	\$6,000	\$2,500	1-59	\$174-\$8,500	1.70%
Medium: \$5,000,000	\$10,000	\$5,000	50-100	\$150 - \$300	0.30%
Large: \$50,000,000	\$18,000	\$7,000	101+	\$0.21 -\$248.	0.05%

Table 2. Estimated Cost of Registration to ISO 9001 or ISO 14001, 1998.
Source: The table is based on research conducted by Johannson's firm E2M in 1998.
Reproduced with permission.

Moreover, as we discussed earlier, certification is only one of four equally acceptable options for demonstrating conformity to ISO 14001.¹³⁰ The EMS community needs to do a better job of communicating the message that organizations may choose which of the four options best suits their needs. In any case, for those that get past the certification price tag, the next barrier to overcome relates to the typical differences between small and large businesses' culture and manner of operation. As it is currently marketed by consultants, auditors, standards bodies and ISO itself, ISO 14001 is a formal management system designed by large entities based on their own experience. By contrast, 95% of small businesses operate informally. They are unlikely to embrace a formal environmental management system unless there are some unequivocal signs from business and government that they want small business, as suppliers and taxpayers, to get on board. From a small business perspective this might mean that the supply chain demonstrates a willingness to include the cost of EMS implementation and maintenance in the price of products and services, or that governments demonstrate a willingness to subsidize all or part of such costs, so that small businesses are not left bearing the entire burden themselves.

¹³⁰ See discussion above, n. 107 and accompanying text.

It takes time to implement an EMS. Time is a non-renewable resource for an SME. One person spending one hour a week on an EMS can represent 3% of a very small business's available labour,¹³¹ a substantial portion for firms that typically operate on very small profit margins. Implementing an EMS also takes money. If done wisely, this can be money well spent, even for small businesses.. On a limited budget, it is wiser for the business owner to invest in identifying environmental aspects (that is, discovering what the company has or does that adds to its environmental footprint and detracts from the bottom line) than an "end-of-pipe" environmental performance audit. Some auditors provide good value in a gap analysis, which can help the small business owner understand what the company already does well, and where the gaps are. This can be money well spent.

Secondly, ISO and national standards bodies have not found a way to ensure effective participation by small business in environmental standards development. Small business participation has been a perennial issue in TC 207, the ISO technical committee responsible for environmental management systems. Participation by small business in TC 207 has been woefully inadequate from the start, and many national mirror committees have fared no better. TC 207 has, for example, had a series of internal task forces in recent years aimed at identifying and overcoming obstacles to SME participation in TC 207 and the development and revision of ISO 14001. Yet these task forces have had almost no SME representation. It has been left largely to self-selected delegates from government, big business, certification bodies or management consultancies to "represent" the perspectives of small business in these processes.

The same resource, knowledge and time constraints that prevent small business from participating effectively in national law-making activities operate in the world of standards development. Numerous presentations have been made at ISO meetings on the challenges faced by SMEs, but ISO committees and central organs seem unable or unwilling to do anything about them. And despite the widely acknowledged SME deficit in TC 207, the few member-driven small business associations that have actually attempted to participate, such as NORMAPME (the European

¹³¹ Assuming a micro-enterprise consisting of one person working 35 hours per week.

Office of Crafts, Trades and Small and Medium Sized Enterprises for Standardization), have often felt ignored, alienated and frustrated.

Just as government regulators should take smart regulation seriously, standards development bodies should develop a better understanding of the nature and culture of small business. They should develop a “smart” approach to standards development and the marketing of standards to small business. This will entail developing ways to market the key elements of ISO 14001 to small business that will bring them the greatest value and help them shift their businesses towards sustainability now. Just as full compliance with all (theoretically) applicable laws is typically not an entry level activity for small business, full EMS adoption based on the degree of formality found in larger entities may not be the best approach for SMEs. Management experts who understand the culture of small enterprises agree that some increases in the degree of formality of a business can result increased productivity.¹³² The optimal degree of formality is the great unknown. What is clear, however, is that many standards developers, consultants and auditors who market ISO 14001 presume a degree of formality far beyond what is suitable or realistic for the vast majority of SMEs. The approach TC 207 has taken to this issue is to initiate work on ISO 14005, a guidance standard for “phased implementation” of ISO 14001.¹³³ This guide is unlikely to present a sustainable solution, however, because it fails to acknowledge some basic facts about small business, including the relative informality of SMEs’ management systems. Instead it assumes that SMEs can ingest an excessively formal management system simply by breaking it into pieces to be swallowed sequentially. In fact, experience with “staged implementation” of EMS standards in Europe suggests that many SMEs will not complete all stages, or will regress when government subsidies for EMS implementation dry up. A phased implementation approach thus risks diluting the credibility of ISO 14001, if organizations stop part way through the process yet still attempt to claim the reputational benefits of

¹³² Personal communications between Johannson and representatives of the Canadian Federation of Independent Business, NORMAPME (the European Office of Crafts, Trades and Small and Medium Sized Enterprises for Standardization), and the US National Federation of Independent Business (various dates).

¹³³ ISO/CD 14005, *Environmental management system — Guide for the phased implementation of an environmental management system — Including the use of environmental performance evaluation* (Committee Draft of 2 February 2007).

ISO 14001 adoption. Furthermore, ISO 14005 is an unwieldy and complex document, weighing in at 81 pages in its current draft. It is far too long to be of any use to small businesses except as a doorstop. If ISO 14005 is published without substantial changes, it will be an embarrassment to ISO at best, or drive an irrevocable wedge between ISO and small business at worst.

ISO 14005 illustrates a weakness of ISO's system for bringing forward new standards for development. All ISO standards, and management system standards in particular, are supposed to be developed based on a solid understanding of market need. This should involve, at a minimum, a demonstration of significant global demand for the proposed standard among potential users of the standard.¹³⁴ The "phased implementation" standard reached ISO via a circuitous route, originally having been proposed at the European level.¹³⁵ No proper market justification research was presented before ISO decided to start work on it. The research that was proffered related to Europe, and had serious weaknesses in scope and methodology. To critics of the phased implementation standard, including the Canadian EMS mirror committee, the real motivation for the development of an ISO guide on phased implementation appeared to be to broaden the revenue base for certain standards development bodies that had a commercial interest in the phased implementation model. One of the main proponents of the phased implementation guide was the British

¹³⁴ ISO rules require a market justification study before any new management system standard may be developed. ISO Guide 72, *Guidelines for the Justification and Development of Management System Standards* (Geneva: ISO, 2001). Guide 72, on its face, applies to all management system standards, from guidance documents to specification standards. When ISO 14005 was proposed, however, ISO took the position that Guide 72 only applies to specification standards. Since ISO 14005 was only intended as a guide, the market justification requirement did not apply.

¹³⁵ Development of a phased EMS implementation standard was initially proposed, and accepted, within CEN (Comité Européen de Normalisation), the principal European standards development body. The proposed guide would have covered staged implementation of EMAS and ISO 14001. Before work could begin at the European level, CEN proposed to transfer the work item to ISO under the Vienna Agreement, an agreement between the two organizations on technical cooperation in areas of mutual interest. The proposal was balloted to ISO/TC 207 members, and approved by a vote of 24-7, with 5 abstentions. A new subcommittee was created within TC 207, and work began on the phased implementation guide in 2006.

Standards Institution (BSI). BSI had already published a British standard on staged implementation, BS 8555.¹³⁶ BSI earns revenues both from the sale of BS 8555 and from provision of consulting services for phased EMS implementation. BS 8555 was one of the main seed documents for the proposed European standard on staged implementation, and the only one forwarded to ISO/TC 207 members when the proposal was elevated to ISO. Whatever other motivations BSI might have had, incorporation of its phased implementation model in an ISO standard would expand the market for its consulting services and enhance the global reach of the BSI brand.

In short, there is reason to believe that ISO 14005 is being driven by parochial economic interests rather than demonstrated global market demand. Many observers and participants doubt that ISO 14005 should be allowed to continue to drain the resources of the standards development community. Even if it is finalized in ISO, it is not clear that it will have any traction in North America.¹³⁷ It just does not appear to meet the needs of North American small businesses.

In short, both governments and standards development bodies have failed to respond adequately to the characteristics and challenges of small business. EMS standards and EP regulations are only small manifestations of this larger problem. In the concluding section of this article, we speculate about where this leaves us on the path toward smart regulation and sustainable development.

IV. CONCLUSION

The experience with the incorporation of environmental management systems into Ontario's environmental penalties regulations suggests six

¹³⁶ BS 8555:2003, *Environmental management systems — Guide to the phased implementation of an environmental management system including the use of environmental performance evaluation* (London: British Standards Institution, 2003).

¹³⁷ Both Canada and the US voted against the development of the standard in ISO. Canada decided from the start not to participate actively in the development of the standard, and the US walked away from the development process in the summer of 2007.

lessons about the incorporation of voluntary standards into official regulation. First, if a standard exists that fulfills the objectives of a proposed regulation, and the standard was developed by a recognized standards body through a relatively robust multi-stakeholder consensus process, regulators should incorporate the standard into the regulatory scheme rather than re-inventing the wheel. Second, they should do so in a way that avoids a proliferation of unexplained discrepancies between the proposed regulation and the standard. Third, if an existing widely accepted standard does not, on its own, meet all the public policy goals of the proposed regulation, regulators should make it clear how the standard is deficient and what more is required to meet public policy objectives. Fourth, they should consult relevant standards development committees when developing regulations. Fifth, they should, to the extent possible, participate in the work of relevant standards development committees to keep abreast of relevant issues and to influence the content of standards on an ongoing basis. Finally, both regulators and standards development bodies should address the special characteristics and challenges of the small, medium and micro-enterprises that make up more than 95 percent of the business community.

The first five suggestions have the potential to advance smart regulation in modest but significant ways by – among other things – saving government policy development costs, enlisting non-governmental expertise, enhancing uniformity of business requirements, taking advantage of market forces, and enhancing the reflexive capacities of regulated entities. Our sixth suggestion, however, has truly transformative potential and represents a fundamental challenge for both regulators and standardization bodies. Designing and implementing regulatory systems that effectively mobilize small business will be critical to sustainable development. While debate continues to rage on the meaning of sustainability and sustainable development, there is little doubt that they represent the single largest challenge now faced by humankind. The recent media frenzy related to one issue, climate change, has led to heightened public awareness and concern. This has pressured politicians to put the environment high on the policy agenda, although even with the increased political rhetoric about climate change and the broader issue of sustainability, little if any progress has been made.

It is beyond the scope of an article on the incorporation of EMS standards into a provincial environmental penalties scheme to speculate further on what a sustainable economy might look like, or how smart regulation, small business and sustainability relate to each other. What we can say is that there is a sense of urgency, driven largely by those who have studied the projections of climate change. This includes scientists, politicians and economists who are ringing warning bells about the dire consequences of radical shifts in our climate. This urgency will soon be intensified by a growing number of small business owners wanting to retire. This succession crisis will not be contained to the Canadian small business community. Policy makers and shapers around the world, and at all levels of government, need to understand the confluence of these issues, and how pervasive the impacts will be.

It is possible to transform this demographic bust into an environmental boon, but we have a very small window of opportunity to respond to the challenge. Whether it is climate change, small business succession or sustainable development generally, the window for effective action will close in the next few years. The next two to three years are probably the most critical, putting the challenge well within the planning horizons of today's politicians and investors. This should be some reason to hope that action will be taken, but the magnitude of the challenges should not be underestimated.