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BOOK REVIEWS

Regulatory Realities: The Implementation and Impact of Industrial Environmental Regulation (London: Earthscan, 1998), xx pp.
by Andrew Gouldson and Joseph Murphy

Reviewed by Shelley H. Metzenbaum

Over the past quarter century, the economies of many developed countries have grown dramatically at the same time that their environmental regulatory structures have become increasingly elaborate and protective. Yet despite this evidence that economic development and environmental protection can rise together, the two policy objectives are widely perceived as mutually antagonistic.

The perceived antagonism is not surprising given the choices that businesses and regulators face on a daily basis. The decisions businesses make as they vie for competitive position–decisions about physical plant expansions, production process changes, and new product lines–all have environmental consequences. Only businesses with customers who value the environment highly focus much attention on environmental improvement. Most businesses instead deal with environmental requirements as a cost to be controlled.

In contrast, decisions government regulators make on a daily basis–decisions about permits, use and deployment of agency staff, and purchasing decisions–are governed by the requirements, rewards, and dangers of public sector bureaucracies. Few government employees making daily permitting and inspection decisions consider the market conditions and profitability of the businesses they regulate. For most regulatory practitioners, business growth is treated primarily as a political factor to be controlled in making an environmental decision.

In their book, *Regulatory Realities*, Andrew Gouldson and Joseph Murphy explore this conflict and how existing industrial environmental regulatory systems

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can be adapted to lessen the adversarial nature of decisions made by businesses and regulators. They identify the characteristics of a country's environmental regulatory system likely to encourage economic and environmental growth, examining both traditional approaches that mandate business participation as well as voluntary systems[1] in which businesses opt to participate. They also conclude that combining mandatory approaches with voluntary ones offers great promise for reducing the conflict between economic development and environmental protection.

Attention to this subject is both timely and welcome. So, too, is the book's presentation of several important experiments in industrial environmental regulation, including specific reforms in the United Kingdom and the Netherlands. This book's contribution to the literature is, however, seriously limited by weaknesses in research methodology and presentation.

Gouldson and Murphy begin their exploration of this subject by introducing the reader to the theory of ecological modernization which argues that "economic development and environmental protection can be combined to synergistic effect." (p. 1) They briefly review the empirical research on ecological modernization, which indicates that while complementary growth in the economy and environmental quality have been evident in some cases (e.g., Denmark, France, Germany, and the UK), it has not occurred in all circumstances (e.g., Central and Eastern Europe). The authors then describe the history of environmental policy to understand how and why the current conflictual system has evolved. Next, they explore what is known about the process of innovation and how regulation can affect the technological, organizational, and strategic inclination of individual businesses to pursue innovations that lessen the economy/environment conflict.

In this context, Gouldson and Murphy examine the policy framework, legal and institutional implementation structures, and implementation styles of industrial environmental regulatory systems in the Netherlands and the United Kingdom. Both countries have a mandatory environmental system which has been in place for many years and which has more recently been supplemented with a voluntary regulatory system. Both operate within the framework of the European Union, which has recently begun to establish its own mandatory and voluntary industrial environmental regulatory guidelines. What distinguishes the two systems is the framework, structure, and styles of their systems, and the way the mandatory and voluntary systems relate to one another.

The British, for example, have played a leading role adopting a legal framework for mandatory environmental regulation that integrates air, water, and land protection. The authors find that the use of an integrated approach avoids the tendency of segregated systems to solve problems in one medium by shifting them to another, and that an integrated statute encourages businesses to pursue more substantial technological and organizational innovation than do multiple single-media statutes. Gouldson and Murphy also find that because regulators in the British system build an intensive working relationship with those whom they

inspect, it enables them to encourage businesses to anticipate rather than react to regulation. At the same time, they conclude that the British reticence to set clear standards, targets, and performance measures without greater scientific certainty renders the negotiating flexibility of individual inspectors suspect, because their work cannot be assessed in the context of, nor can inspectors be held accountable for, performance impact.

The Dutch, in contrast to the British, employ an environmental protection system that relies heavily on standards, targets, and performance measures. Some of these standards are established in the environmental laws of the country, and others are negotiated as convenant agreements with specific sectors and business. Gouldson and Murphy argue that the mandated targets in the Dutch system can either encourage or discourage innovation, depending on the experience level of the regulators and whether regulators insist on maintaining an arm's-length relationship with business which precludes their understanding the constraints businesses face. At the same time, the authors find that negotiated targets set far enough in the future encourage strategic innovation because the targets allow business leaders to plan environmental investment decisions as part of their overall economic strategy. Negotiated targets also obviate the need to achieve scientific certainty, an unrealistic expectation that confounds British standard-setting efforts. Gouldson and Murphy argue that key to the effective use of both the mandated targets and the negotiated targets in The Netherlands is the presence of an independent organization to monitor the performance of the regulatory agencies. This affords both businesses and regulators greater flexibility in their decisions because a mechanism exists to assure accountability for performance.

Drawing on their case studies, Gouldson and Murphy craft a composite model for a system they believe will promote simultaneous environmental and economic gain. They identify characteristics essential to an effective mandatory environmental system and those essential to a voluntary one. The authors argue that the characteristics of a mandatory environmental regulatory system should include: the use of comprehensive minimum standards that define a floor for the short-term environmental performance of regulated parties; ambitious long-term targets to motivate strategic economic and environmental decisions; a credible system of monitoring; easily understood and readily available environmental performance measures; and an amalgamated, multi-media law. To promote mutually supportive economic and environmental growth, Gouldson and Murphy also recommend regulations that are anticipatory and process-focused rather than reactive and emissions-focused and skilled and experienced regulatory staff who employ a hands-on approach to help companies find the most appropriate technologies. An effective regulatory structure should also encourage companies to move beyond reactive corrections to environmental problems to strategic development of clean production technologies and techniques that do not create pollution problems which subsequently need to be corrected. Moreover, regulators should employ a

conciliatory approach toward companies that meet minimum standards and show progress toward longer-term targets, while being more aggressive and litigious toward those that do not.

Gouldson and Murphy conclude that an effective voluntary system should include: minimum short-term environmental standards appropriately protective of the environment; longer-term targets; a clear requirement that businesses meet the minimum standards and make progress toward the longer-term targets; and mechanisms to enforce compliance with the voluntary standards.

They also stress the importance of an external body that monitors and publishes attainment of minimum standards and progress toward longer-term targets for both mandatory and voluntary regulatory agencies. The existence of an external "performance watchdog" creates the necessary check on the flexible aspects of both systems, affording regulators the ability to work with companies more closely to find and adopt solutions appropriate to the situation. It does this by allowing regulators to work with the regulated community to develop environmental protection strategies that anticipate future environmental problems and economic opportunities, while simultaneously compelling regulators to assure attainment of minimum standards and continuing environmental gains.

Finally, the authors call for complementing mandatory regulatory strategies with voluntary environmental regulatory systems. They find that voluntary approaches such as environmental management systems where companies conduct detailed company-wide assessments of their environmental performance tend to enhance corporate environmental awareness and encourage integration of environmental considerations into strategic and operational decision-making. At the same time, they conclude that strong mandatory systems must be maintained even as voluntary systems are adopted to mitigate the pressures that arise in voluntary programs to relax expectations for environmental gain.

In trying to identify a policy framework likely to encourage mutually reinforcing economic and environmental growth, the authors have taken on an ambitious and worthwhile goal. Unfortunately, their methods and models for analysis are sometimes unclear. One concern with the book's policy argument is how conclusions and recommendations are inferred from the findings. For example, one finding which raises doubts is that "those regulations that emphasize the application of qualitative principles such as 'best available technologies' tend to focus on the operating conditions that give rise to emissions. . .[and] may be termed anticipatory" and hence more encouraging of innovation than those that emphasize emissions limits (p. 51). The opposite conclusion is reached by the authors of an overview of industrial environmental regulation in the United States also published in 1998:

> . . . Many pollution control laws are technology based, defining goals by the amount of control that current technologies can achieve. In form, the regulations that implement

> technology-based standards do not dictate the means to be used, usually allowing any method to be used as long as it will achieve the specified level of control. However, in practice, permit writers, inspectors, and the consultants tend to take a dim view of any method for meeting the standard other than the technology on which the standard is based. Pollution sources employing alternative methods do so at considerable risk. . .
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> Technology-based provisions, like most aspects of the pollution control laws, may significantly restrict the flexibility of both the regulators and the regulated. They also encourage end-of-the-pipe controls instead of pollution prevention. (Davies & Mazurek, 1998: 16).

Since Gouldson and Murphy offer scant evidence for their conclusion that process-focused systems are anticipatory, it is hard to feel confidence in their finding.

On another issue, the authors present what would appear as contradictory findings. In one section, the authors conclude that the "arm's length style of implementation and the litigious style of enforcement" of The Netherlands' Pollution of Surface Waters Act has caused regulated companies to "respond to regulation defensively by resisting change" (p. 133). Elsewhere, they acknowledge that Dutch water regulators' traditional arms-length, emissions-focused regulatory system has compelled change by regulated companies, and has been highly effective in improving water quality (p. 111). It is unclear how the authors weigh the evidence to conclude that the conciliative approach is more effective than a litigious style in boosting the environment and the economy.

Another problem detracting from the book is that the models or frameworks developed to interpret the cases are excessively complex. Presumably the authors' intent in developing the frameworks was to help policy-makers interpret their own systems and identify strategies to improve them. By comparison with the models developed by Graham Allison in *Essence of Decision* or John Kingdon in *Agendas, Alternatives, and Public Policies* which clarify readers' understanding, Gouldson and Murphy's frameworks tend to confuse. The classification schemes they present have so many levels and variations that they lose their resonance as well as their ease of application. For example, the analytic construct for examining mandatory environmental regulation identifies three primary attributes which are then divided into two to three sub-attributes that are further sub-divided into two additional categories. The reader is thus expected to keep in mind fourteen discrete categories to clarify thinking about mandatory environmental regulatory system and fourteen more for voluntary systems.

A final weakness is presentation. The book is filled with terms such as the "modernist experiment" that may be familiar to those who follow certain academic debates but are less well-known by others. This sort of language requires translation for many readers, including practitioners who are presumably a target audience for the book. As a frequent practitioner and occasional academic, allow me to make a plea to academics to write in a manner that does

not need to be translated to practitioners. Drop the jargon, or explain it if you must use it.

Despite these weaknesses, the book, especially its case studies, contributes to the current worldwide debate about how we might build an effective environmental protection system that in fact and perception complements rather than conflicts with economic advancement. The discussion of how voluntary environmental regulation has been structured and is being implemented in two different political cultures is extremely helpful as the European Union adopts multinational standards for pollution prevention and environmental management systems. Similarly, exploration of the interplay between mandatory and voluntary industrial environmental regulation in the UK and Netherlands is instructive as countries (and states within countries) struggle with whether and how to use the International Standards Organization 14000 series of standards to enhance environmental performance. Gouldson and Murphy provide readers with a useful and timely window for viewing recent and important environmental policy experiments in two developed countries.

NOTES

1. Voluntary environmental regulation, as defined by Gouldson and Murphy, refers to business actions taken to protect the environment that are "unforced by law." They may, however, be motivated by the threat of legal action or the promise of financial rewards. Development of and compliance with industry-wide standards would be one example of voluntary environmental regulation.

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