

Individual Civil and Criminal Liability for Environmental Damage, by L.J. Zimmerman and E.H. Drews, prepared for the Hartford Steam Boiler Inspection and Insurance Corporation, Hartford, CO, by the Radian Corporation, 1982, 317 pages.

Recent developments in the US Environmental law have added criminal penalties and severely increased civil liability to existing penalties for those who willingly violate environmental regulations. Even trained criminal investigators have been added to U.S. EPA and State EPA staffs to control and catch the "midnight dumpers" of hazardous waste; violators face 5 years in jail for severe cases.

In an opening passage of their book, the authors state:

"In assessing the potential for personal liability under the criminal provision of the environmental statutes, the corporate official is confronted with complex legal questions concerning the specific conduct, the degree of knowledge, and type of intent necessary to establish liability. This assessment is made more difficult by a line of federal cases which suggests that a corporate official in a responsible position may be held criminally liable for the actions of his subordinates if he has the duty and authority to prevent or correct the violation. Specific knowledge of the law is not required."

Thus, the responsible corporate official should closely scrutinize his firm's policy and procedures with respect to a strategic defense against environmental actions which include: (1) environmental audits and assessments; (2) response strategies to a legal threat; and (3) environmental impairment liability insurance.

The book has seven chapters and three appendices. The first two chapters are an executive summary and introduction, respectively. In Chapter 3, the authors discuss criminal statutory liability under federal and state laws. Chapter 4 deals with civil statutory liability, including both civil penalties and various forms of civil compensatory/remedial liability. The current criminal and civil enforcement mechanism and policies of the U.S. EPA and the Department of Justice are discussed in Chapter 5. Included is a discussion of enforcement trends which have emerged at the federal and state levels as well as an assessment of their significance. In Chapter 6, common law (judge-made) is treated, including causes of action against corporate officials and recovery of environmental damages by both government and private plaintiffs. The final chapter identifies and analyzes briefly the various strategic (non-legal) defenses that can be utilized by corporate officials to avoid or mitigate the consequences of personal liability for environmental damages.

The legal treatise on individual criminal and civil liability of corporate officials for environmental damage is unique in two respects. First, the authors have compiled a cohesive body of information on the statutory and common law bases for establishing the personal liability of corporate officials for environmental impairment. The compilation coincides with the emergence of the personal liability issue as a significant body of law, rather than a collec-

tion of random cases. Second, the book attempts to arm the corporate officials with information concerning the legal consensus associated with the various liability theories so that he can conform or reform his conduct accordingly.

GARY F. BENNETT

Major Technological Risk, by P. Lagadec, Pergamon Press, Oxford, 1982, 516 pages, £30.00, U.S. \$60.00.

In many ways, this book is both very rewarding and extremely frustrating. If I can emphasise the more positive aspects first, Lagadec has made a sincere and thoughtful attempt at grappling with the problems of technological risk. In particular, he focuses attention on the extreme technical and political difficulties involved in the development of effective regulatory policies for major hazards. On the other hand, this book was originally written as a French doctoral thesis and, because of this, it suffers in terms of its accessibility to the wider audience it deserves. In addition, *Major Technological Risk* has been translated into English in a less than inspired fashion which includes some obvious errors and, for example, may cause persistent confusion for English-speaking readers due to its lack of recognizable quotation marks. There is no doubt that ruthless editing could have improved this book by cutting out areas of repetition, but giving greater emphasis to the more important passages.

Major Technological Risk is certainly ambitious in scope. The author tackles the issues at the most general level, covering major hazards of every type and developing an international analytical perspective. Having begun by presenting the challenge of risk to modern societies, Lagadec goes on to provide useful background information on the nature and scale of the problems involved. Brief case-studies are provided of five incidents (Flixborough, Seveso, the *Amoco Cadiz*, Three Mile Island, and the Toronto railway accident in 1979). Following this, we are presented with a sobering litany of industrial disasters from the eighteenth century to the present day — from the *Titanic* to Aberfan, from Summerland to the 1906 San Francisco earthquake. Whilst this list is not original, its presentation in condensed form certainly has the desired effect of provoking thought about the control of hazards.

In Part Two, the management of risk is addressed directly. Questions such as the value of risk analytical techniques for policy-making deserve serious attention, but this section seems unconvincing and difficult to grasp. Part Three is more enlightening with its discussion of the roles of operator, public authority and citizen in the social regulation of hazards. It is, however, in the fourth and final section that Lagadec deals with the fundamental political issues posed by risk. Should the state simply impose its assessment on the public — as the author argues has happened in France over its nuclear power pro-