
Remediation of contaminated land is often a regulatory-driven activity both in the USA and in the UK. This fact and its implications with respect to new UK regulations are discussed from several angles within the chapters of the 16th volume of the Issues in Environmental Science and Technology series published by the Royal Society of Chemistry. Volume 7, released 5 years previous, opened this topic; however, in April 2000, the United Kingdoms' new environmental regulatory framework, Part IIA of the Environmental Protection Act of 1990, came into effect. The editors, therefore, sought environmental experts from government, industry, and academia to write chapters discussing the intent, evolution, and potential impact of this new regulatory driver.

This volume attempts to cover every aspect of contaminated land and related issues, which leads to its biggest criticism—it tries to cover everything broadly, but technically. This goal narrows its audience in that it may not be comprehensible for the lay reader, and yet the professional in this industry will have to wade through a lot of background and basic information that she may not need to get to the meat. However, there is meat in most of these chapters. The best are Lowe and Lowe's section “The New UK Contaminated Land Regime”, the two central sections on “Human Health” and “Ecological Risk Assessment”, and Anthony Lennon's fascinating section on “Legal Liabilities and Insurance Aspects of Contaminated Land”. The extensive footnotes and references to additional information, including regulatory websites, are invaluable.

Pollard, Lythgo, and Duarte-Davidson provide a description of the types of contaminated land in the UK and the evolution of environmental understanding and methods of environmental analysis, such as risk assessment. A discussion of the evolution of the regulations and definitions of terms are provided. There are occasional references to the procedures used in the USA, which helps to put the information in perspective for American readers. There is also an overview of the scientific viewpoints and the tools that have evolved along with environmental awareness. The chapter provides a good background that is less a history than a snapshot of where the issue and the science are today.

“The New UK Contaminated Land Regime” section discusses the new system and its political context. Included is a reference to the reaction to the U.S. Superfund system of joint and several liability, which the UK used as an example of “how not to do it” in formulating their system. Another primary difference between the U.S. and UK systems is the level at which remediation is initiated. The Part IIA system requires local authorities to identify and assess land that is contaminated. Land is only defined as “contaminated land” if it is assessed and determined to not only contain contamination, but contamination that is causing a particular problem. A major change implemented by the new act is the rather pragmatic risk-based approach to cleanup.

From a U.S. perspective, the question is whether local jurisdictions are able to obtain the resources necessary to perform the assessments required. Only after those assessments (including risk assessment) are performed can the determination be made as to whether the land fits the definition of contaminated land, which triggers the necessity of issuing a remediation notice to the property owner. It seems that Lowe and Lowe believe the local jurisdiction would bear the burden of assessment to determine if contaminated land needed to be cleaned up. This combined with a pragmatic interpretation of contaminated land allots far less responsibility for cleanup to polluters in the UK system than in the U.S. system. Apparently, the UK tax payer provides the resources for all but the actual cleanup on that portion of land where the land is polluted enough that cleanup has been determined necessary, the landowner and polluter are one and the same, and no other entity exists upon which to assign guilt and benefit.

Partially because the system had been in place for such a short a time before the writing of this text, and partially because the implementation of Part IIA has not yet been finalized, it was difficult to pull the above summary of the working of the system out of the Lowes' chapter. Later chapters provide an overview of the process of site assessment under this system, discuss the toxicology background for a risk based approach, and consider the application of risk assessment for both human health and environmental resource protection. These chapters fill in much understanding of the system for the reader.

The weakest chapter was “Remediation Methods for Contaminated Sites”. This topic is far too broad for a single summary chapter. It is too cursory to be valuable for someone involved in remediation but likely too technical to be of much use to a lay person. The section also does not fit well with the primarily political, regulatory, and data-oriented content of the other chapters.

I found the final chapter by Anthony Lennon, “Legal Liabilities and the Insurance Industry”, to be the most fascinating. This chapter provided some very interesting insights as to how this new regulatory system might impact industry and the owners of contaminated properties.

Assessment and Reclamation of Contaminated Land presents a comprehensive overview of the UK system for dealing with contaminated lands, although the evolution of the implementation of this system remains to be observed. The volume would be extremely useful as a reference for someone preparing to do remediation and environmental investigation work in the UK, as well as for someone evaluating the systems in place in the USA. The extensive references and footnotes are invaluable. What remains uncertain is whether this book will be useful in another 5 years after the implementation issues presumably will have been resolved. For now it presents a valuable view of the issues leading to, and a snapshot of, the current regulatory and scientific climate in the UK.

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