Book review

Ground gas handbook. S. Wilson, G. Card and S. Haines. London: CRC Press, 2009. 192 pp. ISBN 978-1-4398-0883-2. £65.

As the management and remediation of contaminated land has assumed an increasing part of the workload of the geo-environmental engineer, so has the need for a comprehensive and highly readable ground gas handbook such as this.

Ground gas emissions are the more elusive but no less hazardous consequence of contamination. So from the outset, we are made aware of the scale and uncertainty of the problem, from low-risk persistent hazard to the landfill gas explosion at Loscoe and the Abbeystead Pumping Station disasters in the UK. The ensuing legislation, which frames the requirements for gas protection systems, is also covered. As background to its detailed coverage of the investigation, monitoring and design of protection systems, this handbook

provides a very accessible account of the types, sources and properties of ground gas. The fundamentals of gas flow are similarly presented, but for real ground rather than some idealised porous medium.

The handbook is well referenced, from Lambe and Whitman to more recent national standards and environment agencies' web-based reports. This is a technical handbook with geotechnical roots and practical application clearly in evidence. The authors, all experts themselves, provide monitoring protocols and design guides for gas membrane installations and venting systems. Many are generously supported with colour figures or photographs provided by contaminated-land officers and other professionals.

Whether on the shelf of a geo-environmental engineering design office or on the indicative reading list of a geo-environmental engineering course, this handbook deserves a place.

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