1. Record Nr. UNINA9910458847603321 Haggar Salah el-Autore **Titolo** Sustainable industrial design and waste management [[electronic resource]]: cradle-to-cradle for sustainable development / / Salah M. El-Haggar Amsterdam;; Boston,: Elsevier Academic Press, c2007 Pubbl/distr/stampa **ISBN** 1-281-01885-6 9786611018856 0-08-055014-2 Descrizione fisica 1 online resource (420 p.) Disciplina 363.728 628.4 Soggetti Factory and trade waste Industrial ecology Source reduction (Waste management) Waste minimization Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references (p. 371-386) and index. Nota di contenuto Front cover; Sustainable Industrial Design and Waste Management; Copyright page; Contents; Acknowledgments; About the author; Introduction; CHAPTER 1 CURRENT PRACTICE AND FUTURE SUSTAINABILITY; 1.1 Introduction; 1.2 Waste management; 1.3 Treatment; 1.4 Incineration; 1.5 Landfill; 1.6 Zero pollution and 7Rs rule; 1.7 Life cycle analysis and extended producer responsibility; 1.8 Cradle-to-cradle concept; Questions; CHAPTER 2 CLEANER

PRODUCTION; 2.1 Introduction; 2.2 Promoting cleaner production; 2.3 Benefits of cleaner production; 2.4 Obstacles to cleaner production and solutions
2.5 Cleaner production techniques2.6 Cleaner production opportunity assessment; 2.7 Cleaner production case studies; Questions; CHAPTER 3 SUSTAINABLE DEVELOPMENT AND INDUSTRIAL ECOLOGY; 3.1 Introduction; 3.2 Industrial ecology; 3.3 Industrial ecology barriers; 3.4 Eco-industrial parks; 3.5 Recycling economy/circular economy

initiatives: 3.6 Eco-industrial parks case studies: Questions: CHAPTER 4 SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL REFORM; 4.1 Introduction: 4.2 Sustainable development proposed framework: 4.3 Sustainable development tools, indicator, and formula 4.4 Sustainable development facilitators 4.5 Environmental reform; 4.6 Environmental reform proposed structure; 4.7 Mechanisms for environmental impact assessment; 4.8 Sustainable development road map; Questions; CHAPTER 5 SUSTAINABILITY OF MUNICIPAL SOLID WASTE MANAGEMENT: 5.1 Introduction: 5.2 Transfer stations: 5.3 Recycling of waste paper; 5.4 Recycling of plastic waste; 5.5 Recycling of bones; 5.6 Recycling of glass; 5.7 Foam glass; 5.8 Recycling of aluminum and tin cans; 5.9 Recycling of textiles; 5.10 Recycling of composite packaging materials; 5.11 Recycling of laminated plastics 5.12 Recycling of food waste5.13 Rejects; Questions; CHAPTER 6 RECYCLING OF MUNICIPAL SOLID WASTE REJECTS: 6.1 Introduction: 6.2 Reject technologies; 6.3 Product development from rejects; 6.4 Construction materials and their properties; 6.5 Manhole; 6.6 Breakwater; 6.7 Other products; Questions; CHAPTER 7 SUSTAINABILITY OF AGRICULTURAL AND RURAL WASTE MANAGEMENT: 7.1 Introduction: 7.2 Main technologies for rural communities; 7.3 Animal fodder; 7.4 Briquetting; 7.5 Biogas; 7.6 Composting; 7.7 Other applications/technologies; 7.8 Integrated complex 7.9 Agricultural and rural waste management case studiesQuestions; CHAPTER 8 SUSTAINABILITY OF CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT; 8.1 Introduction; 8.2 Construction waste; 8.3 Construction waste management guidelines; 8.4 Demolition waste; 8.5 Demolition waste management guidelines; 8.6 Final remarks; 8.7 Construction waste case studies: Questions: CHAPTER 9 SUSTAINABILITY OF CLINICAL SOLID WASTE MANAGEMENT; 9.1 Introduction; 9.2 Methodology; 9.3 Clinical waste management; 9.4 Disinfection of clinical wastes; 9.5 Current experience of clinical wastes: 9.6 Electron beam technology 9.7 Electron beam for sterilization of clinical wastes

Sommario/riassunto

Sustainable Industrial Design and Waste Management was inspired by the need to have a text that enveloped awareness and solutions to the ongoing issues and concerns of waste generatedfrom industry. The development of science and technology has increased human capacityto extract resources from nature and it is only recently that industries are being held accountable for the detrimental effects the waste they produce has on the environment. Increased governmental research, regulation and corporate accountability are digging up issues pertaining to pollution control and waste treatment a