

CONTENT

	Page
Sludge : What Can Be Done with It?	xi
Section I	
Sludge Management – Technical Aspects	
1. Industrial Sludge Disposal in Michigan	3
2. Municipal Wastewater Treatment Plant Sludge	17
3. Management of Water Treatment Plant Sludges	31
4. Impact of Septic Tank Sludge on Municipal Wastewater Treatment Plants	63
Section II	
Sludge Characteristics, Composition and Analysis	
5. Sludge Characteristics	83
6. Establishing a Sludge Sampling Program	91
7. The concepts, Costs and Uses of Gas chromatography and Chromatography / Mass Spectroscopy in the Analysis of Sludge	99
8. Case History of Sampling Problems in a Sludge Lagoon	103
Section III	
Land Disposal	
9. Agricultural Application of Sewage Sludge	109
10. Landfilling and Renovation with Sludges	127
11. Aesthetic Renovation	137
12. Low-Rate Cropland Application : A Case History in Jackson, Michigan	147
13. Sewage Sludge Composting at the Blue Plains Wastewater Treatment Plant, Washington, DC	165
14. Calcining Sludge – A Partial Solution	171
Section IV	
Monitoring the Environment	
15. Environmental Impacts of Sludge Disposal	179
16. The Impact of Sludge Incineration on the Environment	197
17. Ultimate Disposal of Hazardous Sludge via Solidification	211
18. Monitoring the Response of Soils and crops to Sludge Applications	217
19. A Discussion of Groundwater Monitoring	241
20. Land Disposal Effects on Groundwater	259
21. Cadmium Effects on Mycorrhizae : A Research Need in Forestland Application of Sludge	263
Section V	
Regulatory Aspects	
22. Federal Regulatory considerations in Sludge Utilization	273
Index	283