

## Developing Protocols for Measuring Biosolids Stability

The general goal of this project is to validate test protocols that are commonly used to assess the stability of various biosolids products, and to specify a standard for each test method. Toward this end, the project team conducted a literature review, surveyed selected practicing facilities, and conducted a sampling and analysis program. Information concerning stability-testing protocols and data for each biosolidsstabilization technology and testing method reviewed were collected and evaluated. The biosolids-stabilization technologies reviewed were aerobic and anaerobic digestion, alkaline stabilization, and composting; the testing methods reviewed were specific oxygen uptake rate, volatile solids reduction, additional volatile solids reduction, pH and changes in pH, and carbon dioxide evolution. The report recommends specific protocols for each testing method, and presents intrinsic precision data for each protocol. In addition, data is presented from facilities using each protocol, to serve as a



basis for evaluating the collective degree of variability associated with each stabilization process. Collective variability results from sampling, feedstock, the stabilization process, and the intrinsic variability of each testing method. Using split sample testing, interlaboratory data (variability among different laboratories) are presented. Issues associated with variability, error sources, shortcomings, and numerical criteria values are discussed for each method.

Publication Date: 31/08/2002 eISBN: 9781843396550 Pages: 200 Print: Standard price:  $\pounds 0 / \pounds 0 / \$ 0$ Member price:  $\pounds 0 / \pounds 0 / \$ 0$ 

eBook: Standard price: £34 / €38 / \$50 Member price: £26 / €29 / \$38