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DESIGN FOR THE ENVIRONMENT

GENERAL DfE INFORMATION

**EPA/744/R-00012 Integrated Environmental Management Systems
Company Manual Template for Small Business
(57 pp) December 2000**

This manual is designed to show how Design for the Environment (DfE) technical work can be used to support development of an Integrated Environmental Management System (IEMS). It allows companies to: maintain and improve their IEMs, improve system implementation and systematization across other company management systems.

DESIGN FOR THE ENVIRONMENT

PRINTED WIRING BOARDS

**EPA/744/R-00013A Printed Wiring Board Surface Finishes: Draft
Cleaner Technologies Substitutes Assess
(472 pp) December 2000**

**EPA/744/R-00013B Printed Wiring Board Surface Finishes: Draft
Cleaner Technologies Substitutes Assess
(417 pp) December 2000**

Volume 1 presents a detailed technical analysis of the public health and environmental risk, performance, cost and natural resource for use for six surface finish technologies that can be used in printed wiring board manufacturing. The standard tin-lead

"hot air solder leveling" process and five lead-free alternatives were evaluated. Volume 2 contains the appendices cited in Volume 1, including raw data tables.

Available online at

<http://www.epa.gov/opptintr/dfe/pwb/ctsasurf/pwb-pub.htm>