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TRAITEMENT DE BOUES

TOXIQUE

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LIVRE : Toxic waste minimization in the printed circuit board industry

Ce livre présente des informations sur les pratiques de réduction des ~~eaux~~ ~~de~~ boues toxiques dans les industries de fabrication de semi-conducteurs et de

(6 cas)

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**Toxic Waste
Minimization
in the
Printed Circuit Board
Industry**

T. Nunno

S. Palmer

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M. Breton

POLLUTION TECHNOLOGY REVIEW No. 162

ndc

Foreword

This book presents information on waste minimization practices currently employed in the printed circuit board (PCB) and semiconductor manufacturing industries. Case studies conducted at six facilities evaluated the technical, environmental and cost impacts associated with the implementation of technologies for reducing the volume and toxicity of PCB metals-containing sludges and solvent wastes. The analyses of these data are the basis for demonstrating waste minimization technologies to reduce hazardous waste.

With the enactment of the Hazardous and Solid Waste Amendments in November 1984, Congress set forth a schedule for evaluating the land disposal restriction of various classes of hazardous wastes. A key issue identified in the evaluation of the waste bans is the availability of commercial treatment capacity to handle the wastes proposed for banning. Therefore, Congress also asked EPA to evaluate the potential for onsite waste minimization to reduce the quantity or toxicity of wastes being considered under the ban.

The electronics industry was initially judged as a good choice for individual case studies because it is a growth-oriented industry and ranks in the top 20 industries generating solvent wastes. The criteria for selecting case studies was further narrowed down to those facilities generating waste described by RCRA as waste treatment sludges from electroplating operations, and spent halogenated solvents or still bottoms from recovery of those solvents. These waste types were selected because they are two of the largest volume hazardous waste streams generated by the electronics industry.

The six case study assessments in the book use the results of analytical measurements to discuss the performance of each technology. In addition, measurements of process residuals and/or other discharges are presented. Finally, an assessment of the economics of each technology is also given to assist the cost evaluation of each technology.

Each facility investigated employs some practice that requires offsite disposal. Two of the case studies focus on the recovery of spent halogenated solvents, and the remaining four discuss the recovery or reduction of metal plating and etching process wastes.

The information in the book is from *Waste Minimization in the Printed Circuit Board Industry—Case Studies*, prepared by T. Nunno, S. Palmer, M. Arienti, and M. Breton of Alliance Technologies Corporation for the U.S. Environmental Protection Agency, January 1988.

The table of contents is organized in such a way as to serve as a subject index and provides easy access to the information contained in the book.

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NOTICE

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Final determination of the suitability of any information or procedure for use contemplated by any user, and the manner of that use, is the sole responsibility of the user. The reader is warned that caution must always be exercised when dealing with toxic waste materials, and expert advice should be sought at all times.

Contents and Subject Index

1. INTRODUCTION AND SUMMARY	1
Background	1
Waste Minimization Case Study Selection.	1
Project Summary and Results	3
Metal Plating Bath Waste Minimization Case Studies.	4
Facility A Case Study.	4
Description	4
Results	4
Facility B Case Study.	6
Description	6
Results	6
Facility E Case Study.	7
Description	7
Results	8
Facility F Case Study.	9
Description	9
Results	10
Resist Developing Solvent Recovery Case Studies	10
Facility C Case Study.	11
Description	11
Results	11
Facility D Case Study.	12
Description	12
Results	13
2. CONCLUSIONS	15
Electronic Industry Waste Management	15
Organic Solvent Wastes.	15
Metals-Containing Wastes	16
Case Study Findings.	16
3. RECOMMENDATIONS	19
4. THE ELECTRONICS PRODUCTS INDUSTRY	21
Background	21

Waste Generation	21
Waste Management	26
5. FACILITY A CASE STUDY	32
Facility Characterization.	32
Facility Description	32
Waste Sources	32
Waste Management	33
Waste Handling and Storage	33
Batch Reactor Tanks	33
Clarifiers (Sludge Tanks)	36
Plate and Frame Filter Press	36
Rapid Sand Filter	36
Cartridge Filtration (Prefilter)	36
Cation Exchange Columns	36
Waste Characterization/Process Monitoring	37
Process Testing and Analytical Results.	37
Test Deviations and Changes	37
Results	38
Trace Metals	38
Organic Indicator Results	46
Cyanide Results	46
Hexavalent Chromium	46
Process Emissions	46
Economic Evaluation.	50
6. FACILITY B CASE STUDY	52
Facility Characterization.	52
Facility Description	52
Waste Sources	52
Drilling and Deburring	55
Electroless Copper Deposition, Rinsing, and Neutralization	55
Electrolytic Plating	55
Positive Image Transfer	55
Etching and Resist Strip	55
Solder Mask	56
Gold/Nickel Microplating	56
Hot Air Leveling	56
Waste Management	56
Sodium Borohydride Reduction	57
Ultrafiltration	59
Sludge Filter Press	59
Process Testing and Analytical Results.	61
Process Testing	61
Analytical Results	61
Trace Metal Results	64
Total Organic Carbon/Total Organic Halide	66
Economic and Environmental Evaluation.	69
Economic Evaluation	69
Environmental Evaluation	71
7. FACILITY C CASE STUDY	72
Facility Characteristics.	72
Facility Description	72

Waste Sources	72
Waste Characteristics and Quantities	72
Waste Management	73
Flash Evaporation of Methyl Chloroform.	74
Distillation Column for Recovery of Freon.	74
Process Testing and Analytical Results.	78
Process Testing	78
Flash Evaporator.	78
Distillation Column	81
Process Testing Results.	81
Flash Evaporation	81
Distillation Column	83
Economic and Environmental Evaluation.	83
Economic Evaluation	83
Methyl Chloroform	88
Freon/Methyl Chloroform.	89
Environmental Evaluation.	89
8. FACILITY D CASE STUDY	92
Facility Characterization.	92
Facility Description	92
Waste Sources.	92
Drilling and Deburring	92
Electroless Copper Deposition, Rinsing and Neutralization	92
Hot Roll Resist Lamination.	94
Image Transfer	94
Resist Developing	94
Electrolytic Plating	94
Resist Strip	94
Developer Waste Management	94
Dupont Riston SRS-120.	96
RX-35 Recyclene Still	96
Process Testing and Analytical Results.	98
Process Testing	98
Analytical Results	100
Dupont Riston Still Characterization.	103
Recyclene Still Characterization.	103
Process Residuals.	104
Economic and Environmental Evaluation.	107
Economic Evaluations	107
Environmental Evaluation.	107
9. FACILITY E CASE STUDY	109
Facility Characterization.	109
Facility Description	109
Waste Sources.	112
Board Cutting/Inspection	112
Inner Layer Chemical Clean.	112
Inner Layer Image.	112
Inner Layer Develop, Etch, and Strip	112
Inner Layer Surface Treatment	113
Lamination, Drill, and Deburr	113
Electroless Copper Plating.	113
Outer Layer Image Transfer.	114
Outer Layer Developing	114

Pattern Plating	114
Outer Layer Strip and Etch	114
Fuse-Preclean	115
Microplate	115
Solder Mask	115
Electroplating Bath Waste Management	116
Process Testing and Analytical Results.	117
Process Testing	117
Analytical Results	119
Trace Metals	119
Total Organic Carbon	123
Volatiles and Semivolatiles	126
Cyclic Voltaic Stripping	126
Economic and Environmental Evaluation.	127
Economic Evaluation	127
Capital Costs	127
Operation and Maintenance Costs	127
Total Annual Costs	127
Total Annual Cost Savings	129
Environmental Evaluation	129
10. FACILITY F CASE STUDY	130
Facility Characterization.	130
Facility Description	130
Waste Sources	130
Waste Management	133
Background	133
Electrolytic Recovery System	134
Process Testing and Analytical Results.	136
Process Testing	136
Analytical Results	137
Copper Electroplating	137
Secondary Rinse Copper Concentrations	137
Copper Recovery Rate	137
Tin/Lead Electroplating	140
Plating Bath	142
Dragout Bath	142
Second Rinse	144
Economic and Environmental Evaluation.	144
Economic Evaluation	144
Capital Cost	144
Operation and Maintenance Costs	147
Annual Costs	147
Annual Savings	147
Environmental Evaluation	148
REFERENCES.	149
APPENDIX A: QUALITY ASSURANCE SUMMARY	152
Introduction.	152
Project Organization and Responsibility.	152
Precision, Accuracy, Completeness, Representativeness and Comparability.	152
Facility A	152
Facility B	153

Facility C.	153
Facility D.	153
Facility E.	157
Facility F.	157
Sampling Procedures	160
Facility A	160
Facility B.	160
Facility C.	160
Facility D	160
Facility E.	160
Facility F.	160
Sample Custody	161
Calibration Procedures and Frequency.	161
Analytical Procedures.	161
Data Reduction, Validation, and Reporting	161
Internal Quality Control Checks.	161
Preventive Maintenance	161
Assessment of Precision, Accuracy and Completeness.	161
Corrective Action	162
Quality Assurance Reports	162