

PART 3 Studies

Cleaner Production Case

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1. Abbott Plating Company

<http://es.epa.gov/studies/cs569.html>

Country

USA

Industry

Electroplating

Principles Discussed

- Treatment - Evaporation Unit & ion exchange system
- Rinsing
- Drag-out reduction

2. Allied Metal Finishing

Country

USA

Industry

Electroplating

Principles Discussed

- Water reduction
- Recovery of metals - Electrolytic Recovery

3. Always Powder Coating Pty Ltd

http://www.environment.gov.au/portfolio/epg/environet/ncpd/auscase_studies/apc.htm

Country

Australia

Industry

Powder Coating

Principles Discussed

Alternative Processes - replace conventional iron phosphate pretreatment system with an inorganic phosphate pre-treatment process.

4. Carramar Lighting Pty Ltd

http://www.environment.gov.au/portfolio/epg/environet/ncpd/auscase_studies/carramar.html

Country

Australia

Industry

Powder Coating

Principles Discussed

- Alternative process using a three-way valve system for cleaner, rinsewater and chromate/phosphate.

5. C.M. Almy Pty Ltd.

<http://www.state.me.us/dap/case/cmalmym.htm>

Country

USA

Industry

Electroplating

Principles Discussed

- Water reduction
- Treatment, recovery of metals and chemicals and recycling of rinsewaters- distillation system

6. Cougar Lighting Pty Ltd

http://www.environment.gov.au/portfolio/epg/environet/ncpd/auscase_studies/cougar.html

Country

Australia

Industry

Electroplating

Principles Discussed

- Water reduction
- Treatment and recycling of rinsewaters - deionising units

7. Cromadora Delgado S.A. de C.V.

<http://www.unido.org/services/environment/envncpc/temp/casestudy/casestudy4.html>

Country

Mexico

Industry

Electroplating

Principles Discussed

- Alternative Processes -replacement of cyanide with alternative solutions
- Recovery of metals and chemicals
- Monitoring of plating processes
- Lighting systems for improved energy efficiency

8. Eastside Plating

<http://es.epa.gov/oeca/sctor/fab/fabp2.html>

Country

USA

Industry

Electroplating

Principles Discussed

Improved wastewater treatment through waste segregation and gravity feed.

9. Email Ltd - Kitchen and Bathroom Products Division

http://www.environment.gov.au/portfolio/epg/environet/ncpd/auscase_studies/dorf.htm

Country

Australia

Industry

Electroplating

Principles Discussed

- Recovery of metals - Electrolytic recovery
- Rinsing

10. Gainsborough Hardware Industries Pty Ltd

http://www.environment.gov.au/portfolio/epg/environet/ncpd/auscase_studies/gainsb.htm

Country

Australia

Industry

Electroplating

Principles Discussed

- Alternative Processes - Replace gold cyanide system for Electrophoretic Plating.

11. Gillette Company

Country

USA

Industry

Electroplating

Principles Discussed

- Treatment and recycling of rinsewaters - deionising units
- Closed-loop rinsing
- Drag-out reduction

12. Holly Carburetor

Country

USA

Industry

Electroplating

Principles Discussed

- Treatment - sulfide precipitation

13. Hurd Lock

Country

USA

Industry

Electroplating

Principles Discussed

- Waste segregation
- Treatment - Ion Exchange

14. Industrial Galvanisers Corporation

http://www.environment.gov.au/portfolio/epg/environet/ncpd/auscase_studies/industrial.html

Country

Australia

Industry

Galvanising

Principles Discussed

Alternative Processes - Continuous electrolytic preflux treatment (CEPT)

15. Intrepid Industries Pty Ltd

http://www.environment.gov.au/portfolio/epg/environet/ncpd/auscase_studies/intrepid.htm

Country

Australia

Industry

Powder Coating

Principles Discussed

Alternative cleaning method - replaced methylene chloride paint stripping process with a pyrolysis process - an oven that removes the paint.

16. Kwan Kee Electroly Dyeing

Country

Hong Kong

Industry

Anodising

Principles Discussed

Housekeeping through improved layout and dry floor operations

Improved rinsing through the installation of counter-current rinsing and controls on water addition.

Drag-out reduction through the installation of drain boards and drip bars

17. Medford Plastics Company

Country

USA

Industry

Electroplating

Principles Discussed

- Waste Segregation
- Treatment

18. Merit Partnership

Country

USA

Industry

Electroplating

Principles Discussed

- Water reduction in rinsing processes using conductivity sensors

19. All Metals Processing Company

Country

USA

Industry

Electroplating

Principles Discussed

Modifications to process layout and improve rinsing methods to reduce drag-out and waste generation.

20. Methven Tapmakers

<http://www.mfe.govt.nz/cpcases/case27b.htm>

Country

New Zealand

Industry

Electroplating

Principles Discussed

- Water reduction in rinsing processes
- Counter Current Rinsing

21. Newcastle Galvanising (Graham Group)

http://www.environment.gov.au/portfolio/epg/envirnet/ncpd/auscase_studies/newcastle.html

Country

Australia

Industry

Galvanising

Principles Discussed

Housekeeping - shop floor layout, tank modification, development of a unique hood system.

Use of recycled wastewaters

22. Penfold Engineering Co

http://www.environment.gov.au/portfolio/epg/environet/ncpd/auscase_studies/penfolds.html

Country

Australia

Industry

Powder Coating

Principles Discussed

Water reduction in rinsing processes

Treatment - Ion exchange

23. Phillips Plating Company

Country

USA

Industry

Electroplating

Principles Discussed

Treatment and recycling of rinsewaters - Evaporation units

24. Pioneer Metal Finishing Inc.

<http://es.epa.gov/studies/cs13007.html>

Country

USA

Industry

Electroplating

Principles Discussed

Recovery of metal- electrolytic recovery

25. Pratt and Whitney Aircraft

<http://es.epa.gov/studies/cs567.html>

Country

USA

Industry

Electroplating

Principles Discussed

Treatment and recycling of rinsewaters - evaporation and ion-exchange

26. Premier Plating Company

http://www.environment.gov.au/portfolio/epg/environet/ncpd/auscase_studies/premier.html

Country

Australia

Industry

Electroplating

Principles Discussed

Treatment - Static treatment system

Recycling of wastewaters

27. Southern Maine Industries Corporation

<http://www.state.me.us/dep/case/southern.htm>

Country

USA

Industry

Electroplating

Principles Discussed

- Waste segregation and treatment through ion exchange units
- Drag-out reduction through minor modifications to process
- Rinsing

28. Von Duprin, Inc

<http://es.epa.gov/studies/cs566.html>

Country

USA

Industry

Electroplating

Principles Discussed

- Drag-out reduction through extension and automation of drain times and counter-current rinsing.
- Water reduction through closed-loop rinsing
- Treatment and metal recovery - ion exchange and reverse osmosis.