

SAN DIEGO AIR POLLUTION CONTROL DISTRICT

SUPPLEMENTAL APPLICATION INFORMATION
FEE SCHEDULE
32 A

San Diego APCD Use Only
Appl. No.:
ID No.:

COPPER ETCHING

Company Name: _____

Equipment Address: _____

A. EQUIPMENT DESCRIPTION

List equipment used in the process:

<u>Equipment</u>	<u>Manufacturer</u>	<u>Model</u>	<u>S/N</u>

B. PROCESS DESCRIPTION

C. OPERATING SCHEDULE

Average: _____ Hrs/Day _____ Days/Wk _____ Wks/Yr

Maximum: _____ Hrs/Day _____ Days/Wk _____ Wks/Yr

D. ETCHING SOLUTION INFORMATION

Type of Etching Solution: _____

Operating Temperature of Etching Solution: _____ °F; or _____ °C

Material	Product Manufacturer	Product I.D. Number	Max. Use (Gals/Day)	NH₃ M1/M2	Cu₁/Cu₂ (g/l)

16 Total Average of Materials used: _____gal/month

17 Additional Anhydrous Ammonia (NH₃)/liter of etching solution:

18 _____lb/day (Max.); _____lb/month (Avg.); _____lb/year (Avg.); **or**

19 _____gal/day (Max.); _____gal/month (Avg.); _____gal/year (Avg.)

- Attach a current Material Safety Data Sheet (MSDS) for each material listed.
- Molarity (M) Moles of compound (NH₃)/liter of etching solution
- M1: Molarity of NH₃ in original etching solution includes free NH₃ and complexed NH₃
- M2: Molarity of NH₃ in original etching solution which will be recycled
- Cu₁ (gram/liter): Copper Concentration in original etching solution
- Cu₂ (gram/liter): Copper Concentration in remaining etching solution which will be recycled

20 pH range for normal operation (if applicable): _____

21 pH range for remaining etching solution which will be: _____

22 **E. EMISSION CONTROL EQUIPMENT**

23 Describe how process equipment is vented: _____

24 _____

25 _____

26 Length of Venting Cycle: _____minutes Ventilation Flow Rate: _____cu ft/min

27 Description of Control Equipment (if applicable): _____

28 _____

29 _____

30 _____

31 _____

32 If control equipment is a water scrubber, is the water pH enhanced? ☐ Yes ☐ No

33 Is the water scrubber equipped with a permanent pH meter? ☐ Yes ☐ No Specify pH level: _____

34 Specify type of chemical used to maintain pH level: _____

35 Control Efficiency for NH₃: _____

36 **F. STACK DATA**

<u>Parameter</u>	<u>Stack #1</u>	<u>Stack #2</u>	<u>Stack #3</u>
Height above top of bldg. (ft)			
Height above ground (ft)			
Stack Diameter (ft)			
Exhaust gas temp. (°F)			
Exhaust gas flow (scfm)			
Building dimensions	L x	W x	H ft

37 **G. FACILITY DATA**

Please attach a site sketch or drawing and provide the following information:

- 38 • Distance from emission point(s) to the nearest property line.
- 39 • Distance from emission point(s) to the nearest residence.
- 40 • Distance from emission point(s) to the nearest significant terrain feature.
- 41 • Distance from emission point(s) to other large buildings in the vicinity.

- Attach a copy of Thomas Bros. map page and identify your source location.
- Attach a sketch of the process equipment configuration and associated ventilation equipment including duct sizes and fans.

42 **Name of Preparer:** _____ **Title:** _____

43 **Phone No.:** (____) _____ **Date:** _____

NOTE TO APPLICANT:

Before acting on an application for Authority to Construct or Permit to Operate, the District may require further information, plans, or specifications. Forms with insufficient information may be returned to the applicant for completion, which will cause a delay in application processing and may increase processing fees. The applicant should correspond with equipment and material manufacturers to obtain the information requested on this supplemental form.