EXISTING HARD CHROME ELECTROPLATERS
FINAL RULE CHECKLIST

1. Are you a large or small facility?

   ☐ large ☐ small

   To determine size, follow the EPA's formula:

   $\Sigma RC_i \times 8400 \times 0.7 =$ _____ amp-hours/yr

   RC_i = rectifier capacity

   Add the capacities of all installed rectifiers associated with chrome plating, multiply it by 8400 and 0.7. (The 8400 represents hours per year and the 0.7 assumes electrodes are charged 70% of time). If the value is less than **60,000,000 amp-hours**, then the facility is designated as small. Otherwise, it is considered large.

   If you answered small, go to item 4.

2. If your actual amp-hour usage is less than 60,000,000, you can request that your facility be designated as a small source. There are several conditions to this:

   1. You must obtain a federally enforceable limit in your Title V permit

   2. Each month, you must record actual rectifier capacity of all electroplating tanks. This monthly total must be added to the totals for the previous eleven months. In no twelve month period can you exceed 60,000,000 amp-hours.

   3. In the initial notification form, you must indicate that you will be limiting maximum rectifier potential and thus be regulated as a small facility.

   Will you be exercising this option?

   ☐ yes ☐ no

   If you answered yes, go to item 4.

3. The emission limit is 6.6×10^{-6} grains of total chromium per dry standard cubic foot (gr/dscf). This emission limit was based upon the use of a composite mesh pad system of air filtration.
Go to item 5.

4. The emission limit is 1.3×10^{-5} grains of total chromium per dry standard cubic foot (gr/dscf). This emission limit was based upon the use of a well maintained packed bed scrubber for air emissions.

5. The compliance deadline for this rule is **January 25, 1997**.

6. Are you currently using controls which are different than those on which the emission limits were based (see questions 3 and 4)?

☐ yes ☐ no

If you answered no, go to item 11.

7. Will the air emissions from your current control equipment be less than the emission limit listed in question 3 or 4?

☐ yes ☐ no ☐ not sure

If you answered yes, go to item 11.

8. Will you need to install controls to meet the emission requirement?

☐ yes ☐ no

9. Will you be able to install the required controls and meet compliance requirements by January 25, 1997?

☐ yes ☐ no

10. If you cannot meet the deadline, you can file for a **one year extension**. The extension must be requested six months before the compliance date.

11. Initial notification must be submitted to the EPA by July 24, 1995. When these forms are received, they will be forwarded to you.

12. Everyone must prepare and implement an operation and maintenance plan by January 25, 1997. The following must be included in this plan:

    1. Normal operating parameters for process equipment and the control systems.

    2. Checklist to document operation and maintenance of above equipment.

    3. Work practice standards for the control equipment (See Table 1).

    4. Maintenance procedures to prevent process malfunctions.

    5. Procedures for identifying and correcting malfunctions in equipment.

- At all times, the operator will adhere to the procedures in the operation and maintenance plan.

- Malfunctions will be corrected as soon as practicable.

- If the plan does not properly address a malfunction, it must be revised within 45 days of the malfunction.

- If, during a malfunction, the operator uses procedures other than those listed in the operation and maintenance plan, he must report such procedures within 2 working days and follow with a report a week later.

- This plan and its revisions must be kept for 5 years.

TABLE 1. Summary of Work Practice Standards

Control Technique	Work Practice Standard	Frequency
Composite Mesh Pad (CMP) System	1. Visually inspect device to ensure there is proper drainage, no chromic acid buildup on pads, and no evidence of chemical attack on structural integrity of the device.	1. 1/quarter
	2. Visually inspect back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist.	2. 1/quarter
	3. Visually inspect ductwork from tank to the control device to ensure there are no leaks.	3. 1/quarter
	4. Perform washdown of the composite mesh-pads in accordance with manufacturers recommendations.	4. per man'f

Control Technique	Work Practice Standard	Frequency
Packed Bed Scrubber (PBS)	1. Visually inspect device to ensure there is proper drainage, no chromic acid buildup on the packed beds, and no evidence of chemical attack on the structural integrity of the device. 2. Visually inspect back portion of the chevron blade mist eliminator to ensure that it is dry and there is no breakthrough or chromic acid mist. 3. Visually inspect ductwork form tank to the control device to ensure there are no leaks. 4. Add fresh makeup water to the top of the packed bed [a,b]	1. 1/quarter 2. 1/quarter 3. 1/quarter 4. whenever makeup is added
PBS/CMP system	1. Visually inspect device to ensure there is proper drainage, no chromic acid buildup on pads, and no evidence of chemical attack on structural integrity of the device. 2. Visually inspect back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist. 3. Visually inspect ductwork from tank to the control device to ensure there are no leaks. 4. Perform washdown of the composite mesh-pads in accordance with manufacturers recommendations.	1. 1/quarter 2. 1/quarter 3. 1/quarter 4. per man'f
Fiber-bed mist eliminator[c]	1. Visually inspect fiber-bed unit and prefiltering device to ensure there is proper drainage, no chromic acid buildup in the units, and no evidence of chemical attack on the structural integrity of the devices. 2. Visually inspect ductwork from tank or tanks to the control device to ensure there are no leaks. 3. Perform washdown of fiber elements in accordance with manufacturers recommendations.	1. 1/quarter 2. 1/quarter 3. Per man'f
Air Pollution Control Device (APCD) not listed in rule	To be proposed by the source for approval by the Administrator	
Monitoring Equipment		
Pitot Tube	1. Backflush with water, or remove from the duct and rinse with fresh water. Replace in the duct and rotate 180 degrees to ensure that the same zero reading is obtained. Check pitot tube ends for damage. Replace pitot tube if cracked or fatigued.	1. 1/quarter

a. If greater the 50 percent of the scrubber water is drained (i.e., for maintenance purposes), makeup water may be added to the basin.
b. For horizontal flow scrubbers, top is defined as the section of the unit directly above the packing media such that the makeup water would flow perpendicular to the air flow through the packing. For vertical flow units, the top is defined as the area downstream of the packing material such that the makeup water would flow countercurrent to the air flow through the unit.
c. Work practice standards for the control device installed upstream of the fiber bed mist eliminator to prevent plugging do not apply as long as the work practice standards for the fiber bed unit are followed.

13. All hard chrome electroplaters are required to conduct an **initial performance test by July 24, 1997.**

14. Sixty days before you run the performance test, a written notification must be submitted to the EPA. You should include in this notice the name of your company, location, date of test, and the name of the consultant performing the test.

15. The initial performance test is conducted to set site specific operating parameters for the control equipment. These parameters will confirm compliance with the emission limits.

    The performance test report must contain the following information:

    1. brief process description
    2. sampling location description
    3. description of sampling and analytical procedures
    4. test results
    5. quality assurance procedures and results
    6. operating conditions during test
    7. summary of chemical standard preparation and calibration procedure
    8. data sheets from field sampling and lab analyses
    9. documentation of calculations
    10 other information required by test method

    A description of the test methods is included in the federal rule - §63.344(c) - (d).

    Site specific operating parameters which must be tested include:

    1. pressure drop across air pollution control device (for both packed bed scrubber and composite mesh pad system).
    2. velocity pressure at inlet of pollution control device (for packed bed scrubber)

16. Once the initial performance test has been completed, monitoring must begin immediately to demonstrate continued compliance with the emission limitation.

    Table 2 summarizes the monitoring requirements.

TABLE 2. Summary of Monitoring Requirements

Control Technique	Monitoring Parameter	Frequency
Composite Mesh Pad (CMP) System	1. Pressure drop across unit	1. 1/day[a]
Packed Bed Scrubber (PBS)	1. Pressure drop across unit 2. Velocity pressure at the inlet of the control system	1. 1/day[a] 2. 1/day[a]
PBS/CMP system	1. Pressure drop across unit	1. 1/day[a]
Fiber bed mist eliminator	1. Pressure drop across fiber bed mist eliminator 2. Pressure drop across the upstream control device used to prevent plugging	1. 1/day[a] 2. 1/day[a]
Air Pollution Control Device (APCD) not listed in rule	To be proposed by the source for approval by Administrator	

a. once each day the equipment is operating

17. A report of the performance test results must be submitted to the EPA 90 days after its completion.

18. Is your facility, according to your air permit, a major source of air emissions?

☐ yes ☐ no

If you answered no, go to item 20.

19. Compliance status reports must be submitted semiannually. (major source)

Go to item 21.

20. Compliance status reports must be completed annually and retained on site. (area source)

21. The compliance status reports must contain the following information:

1. company name and address
2. list of operating parameters which are monitored
3. emission limit for the source
4. compliant operating range for the site specific parameters as determined by the performance test
5. beginning and ending date of reporting period
6. description of process
7. total process operating time during reporting period
8. the actual cumulative rectifier capacity for each month in the reporting period (if limiting maximum cumulative rectifier potential capacity - see item 2)
9. a statement that the procedures in the operating and maintenance plan were followed
10 description of any changes in monitoring, process, or controls since the last reporting period
11 name, title, and signature of the responsible official who is certifying the accuracy of the report
12 date of the report
13 If, during the reporting period, the operating parameters were out of the compliant range, this excess, its duration, and cause must be reported.
14 If, during the reporting period, the procedures in the operation and maintenance plan are not followed, an assessment of whether emission exceedances occurred during this period must be made. A copy of the report which is required (item 12) must be attached.

If an exceedance in air emission is reported, the EPA may increase the reporting period and require submittal of reports.

22. **Recordkeeping:** The following items must recorded and kept on site for **five years**:

1. work practice standards inspections (see item 12).
   The inspection record should include:
   a. date of the inspection
   b. description of the working condition of the device
   c. actions taken to correct deficiencies
2. all maintenance on control equipment
3. each malfunction including cause and duration †
4. actions taken during the malfunction if these differed from the operation and maintenance plan (see item 12) †
5. other data necessary to demonstrate compliance with the operation and maintenance plan (see item 12)
6. compliance monitoring (see item 16); included in these reports must be the date and time of the measurement(s)
7. performance test results

8. the date and time of the beginning and end of a period of emission exceedance, as indicated by the monitoring data †
9. total process operating time during a reporting period †
10 the actual cumulative rectifier capacity for each month in the reporting period (if limiting maximum cumulative rectifier potential capacity - see item 2) †
11 copies of all notification reports

† These are included in the compliance status report.

The EPA is generating sample reporting forms and monitoring checklist. When these are available, they will be forwarded to you.

23. All hard chrome electroplaters are required to obtain Title V air permits. The deadline for obtaining this permit is still being negotiated (it will not be before January 25, 1997).

24. The following table is an index of the final rule which you will find attached.

definitions	§ 63.341	p. 4963
size of facility	§ 63.341 (a)	p. 4964
rectifier potential	§ 63.341 (a)	p. 4964
limiting maximum rectifier potential	§ 63.342 (c)(2)(i)	p. 4965
emission limits	§ 63.342 (c)(1)(i)-(ii)	p. 4965
compliance deadline	§ 63.343 (a)	p. 4966
deadline extension request	§ 63.343 (a)(6)	p. 4967
work practice standard	§ 63.342 (f)(1)	p. 4965
operation and maintenance plan	§ 63.342 (f)(3)	p. 4966
compliance monitoring	§ 63.343 (c)	p. 4968
initial performance test	§ 63.344 (a)	p. 4970
methods to be used in conducting performance test	§ 63.344 (c)	p. 4970
establishing site specific parameters	§ 63.344 (d)	p. 4970
new and reconstructed sources	§ 63.345	p. 4972
recordkeeping	§ 63.346	p. 4973
initial notification report	§ 63.347 (c)	p. 4973
notification of performance test	§ 63.347 (d)	p. 4974
notification of compliance status	§ 63.347 (e)	p. 4974
ongoing compliance status report	§ 63.347 (g)(3)	p. 4975
emission exceedances	§ 63.347 (h)(2)	p. 4976
test methods	Appendix A	p. 4979
Title V air permit requirement	§ 63.340 (e)	p. 4963