Metal Finishing Wastewater Pretreatment Standards

40 CFR Parts 403.12 and 433

Industrial users that discharge wastewater to a publicly owned treatment works (POTW) are subject to general regulations that prohibit the discharge of pollutants that may pass through or interfere with the POTW treatment process. Wastewater pollutants that may create an explosion hazard, cause corrosive structural damage, obstruct flow, introduce excessive heat, and release toxic gases are also prohibited.

Industrial users are also subject to federal Metal Finishing Pretreatment Standards if wastewater from one or more of the following operations is discharged to a POTW:

- Electroplating
- Electroless plating
- Anodizing
- Coating (including iron phosphatizing, chromating and coloring metal parts)
- Chemical etching and milling
- Printed circuit board manufacture

Reporting, Recordkeeping and Monitoring Requirements

BASELINE MONITORING REPORT

Facilities subject to these standards must prepare and submit a baseline monitoring report (BMR) to their Control Authority (CA). The CA is: 1) the local POTW if it has an approved pretreatment program; or 2) the Iowa Department of Natural Resources. The BMR includes the following information:

- The name and address of the facility and its owners;
- A list of all environmental control permits held by the facility;
- A description of the operations conducted including average production rates, Standard Industrial Classification codes, and a schematic diagram of processes that discharge wastewater to the POTW;
- Wastewater flow measurements from regulated discharges;
- Identification of the Pretreatment Standards (see Table 1) applicable to each regulated process and pollutant concentration/mass data for regulated parameters, including:
  - » A statement certifying whether the facility is in or out of compliance with discharge standards; and
  - » If not in compliance, a description and schedule of actions that will be implemented to achieve compliance.

A BMR was due in February 1984 for facilities in operation at that time. Regulated facilities starting after that date must submit a BMR 90 days prior to wastewater discharge.

90 DAY COMPLIANCE REPORT

An initial compliance report must be submitted to the CA within 90 days of the industrial user's compliance date (i.e., the date on which the facility began discharging regulated wastewater). This report indicates whether the standards are being met. It also includes information on regulated pollutant concentrations, average and maximum daily flow rates and, if not in compliance, describes what steps will be taken to achieve compliance.

REPORTS ON CONTINUED COMPLIANCE

Periodic compliance reporting to the CA must be completed semi-annually, typically in June and December. Reports include information on pollutant concentrations, average and maximum daily flow rates, sampling/analytical methodology, and a compliance status certification statement.

NOTICE OF SLUG LOADING

A facility must immediately notify its POTW if any pollutant is released at a flow rate or concentration that will interfere with the POTW's normal operation.

RECORDKEEPING

All wastewater records must be kept on site and be available for inspection upon request. These records should be maintained for at least three years.

MONITORING

Table 1 identifies pollutant discharge limits for regulated facilities. Facilities operating before August 1982 are subject to Pretreatment Standards for Existing Sources (PSES) while facilities established after that date must meet Pretreatment Standards for New Sources (PSNS). With the exception of cadmium, these discharge limits are the same and include heavy metals, cyanide, and total toxic organics (TTOs). TTOs are a long and expensive list of organic contaminants.

The BMR and periodic reports must include monitoring results for the pollutants in Table 1. Although initial monitoring for TTOs is needed for the BMR, the Control Authority may exclude subsequent TTO monitoring if a facility demonstrates TTO compliance in the BMR and completes the following tasks:

- A toxic organic management plan is submitted to the control authority. This plan identifies toxic organic compounds used at the facility, the disposal method for these compounds, and procedures used to ensure they do not routinely spill or leak into the wastewater discharge.
- The following certification statement is included in each periodic report:

  Based on my inquiry of the person or persons directly responsible for managing compliance with the permit limitation [or pretreatment standard] for total toxic organics, I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last discharge monitoring report. I further certify that this facility is implementing the toxic organic management plan submitted to the control authority.

TABLE 1 - PSES AND PSNS DISCHARGE LIMITS

Pollutant(s)	Single Day - Maximum (mg/l)	Monthly Average – Maximum (mg/l)
Total Cadmium	0.69 (0.11*)	0.26 (0.07*)
Total Chromium	2.77	1.71
Total Copper	3.38	2.07
Total Lead	0.69	0.43
Total Nickel	3.98	2.38
Total Silver	0.43	0.24
Total Zinc	2.61	1.48
Total Cyanide	1.20	0.65
Total Toxic Organics (TTO)	2.13	.....

Note: PSNS limits for cadmium are denoted by values in parentheses. *Wastewater discharge standards for pH, Oil & Grease, and TSS, will likely be established by the local POTW.