



National Pretreatment Program

(40 CFR 403)



Pretreatment Streamlining Rule

Fact Sheet 4.0: Equivalent Concentration-Based Limits for Flow-Based Standards

Summary

As part of the 2005 Pretreatment Streamlining Rule, EPA created new flexibility for Control Authorities and Industrial Users by providing Control Authorities the discretion to control pollutant discharges through equivalent concentration-based limits in lieu of flow-based mass limits for certain industrial categories. EPA established this flexibility because flow-based mass limits can be difficult for the Control Authority to implement and enforce. For example, flow-based mass limits may be difficult to develop and enforce in situations where the facility has highly variable production with flows that often vary week-to-week or day-to-day.

Who might be affected by this provision?

This provision affects Control Authorities that want the discretion to replace Categorical Industrial Users' (CIUs') flow-based mass limits with equivalent concentration-based limits. The affected industrial categories are:

- Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF), 40 CFR 414;
- Petroleum Refining, 40 CFR 419; and
- Pesticide Chemicals, 40 CFR 455.

The standards for these three industry categories require the Control Authority to develop a flow-based mass limit by identifying the average daily flow rate of the Industrial User's regulated process wastewater and then multiplying that value by the appropriate promulgated concentration-based Categorical Standard (e.g., see 40 CFR 414.111(a)).

The provision also affects states that plan to amend state law to allow Control Authorities the discretion to set equivalent concentration-based limits.

Who qualifies for equivalent concentration-based limits?

Control Authorities can use equivalent concentration-based limits instead of flow-based mass limits for three industry categories identified above. EPA notes that the decision to use equivalent concentration-based limits for flow-based mass limits is at the discretion of the Control Authority and not the CIU.

How are equivalent concentration-based limits put in place?

Once a POTW revises its approved pretreatment program to allow for equivalent concentration-based limits, Industrial Users may initiate the process by submitting an application to the Control Authority requesting replacement of their flow-based mass limits with the equivalent concentration-based limits.

This application should detail the CIU's eligibility for equivalent concentration-based limits using the following criteria:

- Equivalent concentration-based limits are not currently being or will not subsequently be met through the use of dilution or by-pass as a substitute for treatment (see 40 CFR 403.6(d) and 40 CFR 403.17). (There are a number of ways the Control Authority may evaluate whether the CIU is diluting its flows. This evaluation can be made by comparing the CIU's product to flow ratio relative to that of other facilities within its industry or requesting an explanation of why it uses the level of process water that it uses.)
- CIUs that mix their process effluent prior to treatment with wastewaters other than those generated by the regulated process must provide information regarding the pollutant concentrations at the sample point that need adjustment using the combined wastestream formula. See 40 CFR 403.6(e) for more details.

The Control Authority will approve or reject the CIU application. The Control Authority will also verify and document that the CIU meets the above eligibility requirements before incorporating the equivalent concentration-based limits into the CIU's permit (or other equivalent control mechanism). The Control Authority will document how the equivalent concentration-based limits were derived and make the documents publicly available.

What is required after equivalent concentration-based limits are in place?

Once the Control Authority has properly authorized the use of an equivalent concentration limit and has incorporated that limit into the Industrial User's control mechanism, the concentration limit replaces the mass limit. For example, Control Authorities may use this new flexibility to control pollutant discharges from OCPSF facilities by using the concentration-based standards in 40 CFR 414.111(b). The final rule requires that an Industrial User must comply with the equivalent limit in lieu of the promulgated categorical Pretreatment Standard once the limit is incorporated into its control mechanism. The Control Authority may also determine that an Industrial User should be subject to both the flow-based mass limit as well as the concentration-based limit. When incorporated into the issued control mechanism, the Industrial User would have to comply with both limits.

After the Control Authority issues a permit (or control mechanism) with equivalent concentration-based limits, the continued applicability of the equivalent concentration-based limits depends on the CIU's continued compliance with certain requirements. EPA recommends that Control Authorities consider specifying appropriate flow monitoring requirements and including evaluation of flow data in the review of periodic reports for Industrial Users subject to equivalent concentration standards. This will enable Control Authorities to determine if there have been changes in flows that may indicate dilution, such as increases in process, non-process or overall flows, especially those not accompanied by production increases. (The Control Authority should note that 40 CFR 403.12(e)(1) already requires CIUs to provide information regarding maximum and average daily flows in their periodic reports, and to require more detailed flow data as necessary.)

If the CIU subsequently fails to comply with these requirements, the Control Authority must revise the CIU's permit (or control mechanism) to require the CIU to comply with flow-based mass limits derived from the Categorical Pretreatment Standards (e.g., see 40 CFR 414.111(a)).

When are the equivalent concentration-based limits effective?

Equivalent concentration-based limits are effective when the Control Authority issues a permit (or control mechanism) that establishes equivalent concentration-based limits under 403 CFR 403.6(c)(6). These equivalent concentration-based limits are federally enforceable. If the Control Authority has not issued a control mechanism that establishes the equivalent concentration-based limits for facilities in these three categories, the IU must comply with the default flow-based mass limits as established in the applicable Pretreatment Standards (e.g., see 40 CFR 414.111(a)).

EPA notes that, for the Pesticides Chemicals category (40 CFR 455), in certain circumstances, an Industrial User may already be subject to concentration based limits rather than the otherwise required mass limits. Where the Control Authority has not established flow-based mass limits as required, 40 CFR 455.26 and 455.27 provide that Industrial User must comply with the default concentration-based limits as established in the categorical Pretreatment Standard.

Where can I get more information?

The equivalent concentration-based limits provision is found in 40 CFR 403.6(c)(6), which was published in the Federal Register on October 15, 2005 (70 FR 60134). You can get a copy of the rule at EPA's Pretreatment Web site, http://cfpub.epa.gov/npdes/home.cfm?program_id=3.

Additional information is also available from your state or from EPA.