

Design Flow in Colorado: New! Fun! Litigious!

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Agenda

- Basic Background
 - EPA Requirements
 - Place in Mass-Balance
- Design Flow and POTWs
 - General Approach
 - Proposed Regulatory Changes
 - Permittee Asks/Our Responses
- Design Flow and Industrial Facilities/Mines
 - General Approach
 - Litigation

Background



EPA Regulations - the Floor

- 40 CFR § 122.45(b)(1) “In the case of POTWs, permit effluent limitations, standards, or prohibitions shall be calculated based on design flow.”
 - Design flow is not specifically defined in the federal regulations, but has generally been interpreted to mean rated capacity
- 40 CFR 122.45(b)(2) - for all other dischargers, limits should be based “not upon the designed production capacity but rather upon a reasonable measure of actual production of the facility.”





POTWs

Colorado Regs and Practices

- Site approvals for POTWs establish design capacity, used for design flow
- Proposed new definition for design flow
 - (20) “DESIGN FLOW” means the design capacity except in the following circumstances:
 - (a) When a facility is a treater for reclaimed water, as defined in Regulation 84.5(38), the division may consider whether the reclaimed water flow capacity, the minimum reclaimed water treated, or a lower amount may be subtracted from the rated capacity of the plant to equal the design flow.
 - (b) When a domestic wastewater treatment works includes flow equalization that affects the maximum month average daily discharge (or other measure deemed appropriate by the division), the rated capacity of the plant will be measured after all flow equalization.
 - The design capacity shall be given in millions of gallons per day and organic loading in pounds per day. Design flow may be divided among different outfalls





Tiers and POTWs!

Co. Regulatory Language - 61.8(2)(f)

Where the facility design flow and actual flow are significantly different, the Division may implement a tiered approach to setting water-quality-standard-based effluent limitations, provided that:

- “one of the sets of effluent limitations reflects the design flow and the permittee demonstrates the ability to meet effluent limitations at the design flow rate” or can do so over time with a compliance schedule

When are tiers appropriate?

- Maximum of two tiers
- For different seasons
- When there is a significant change in flow - more than 50%
- When there is a seasonal change in population
- In the permitting process after PELs and design capacity have been determined

Where are tiers not appropriate?

- When the change in flows are due to i/i
- Plants that need to de-rate to reflect their actual annual usage
- For specific pollutants



Industrial Facilities/Mines and Flow

Colorado Regs and Practice

- In general, Colorado allows non-POTWs to establish their own flow maximum
- Co uses that flow maximum to establish water quality based effluent limits



Flow Limit Litigation!

- Ongoing litigation regarding 2015 Sage Creek Peabody mine permit near Steamboat Springs, Colorado
- Peabody objects to flow limits as impractical and unreasonable
- State won last administrative appeal, current litigation in state Court of Appeals regarding timing of appeal



Picture credit - Steamboat Pilot and Today, <https://www.steamboatpilot.com/news/peabody-energy-gives-ok-to-sage-creek/>