

FILTER BW. RECYCLING

Summary of the Filter Backwash Recycling Rule.

- 1) Recycle systems will be required to return spent filter backwash water, thickener supernatant, and liquids from dewatering processes to a point such that all conventional or direct filtration treatment processes are employed. This ensures that recycle flow passes through all treatment processes required for the system to maintain 2-log Cryptosporidium removal credit.
- 2) Systems practicing recycle must notify the Primacy Agency in writing that they practice recycle.
- 3) Systems must also collect and maintain on-site existing information on recycle flow volumes, treatment/equalization, and other parameters for the Primacy Agency to use to evaluate whether modifications to the recycle practices are necessary.
- 4) Primacy Agencies may approve alternate recycle return locations on a case-by-case basis.

IMPORTANT DATES

Proposed: April 10, 2000

Finalized: June 8, 2001

Completion of Reporting Requirements (listed on the back): Required by December 8, 2003

Compliance Date: If requesting approval for an alternate recycle return location, Primacy approval must be received by June 8, 2004. Capital improvements must be completed by June 8, 2006.

Insight Into the Regulation:

The SDWA Amendments required the USEPA to promulgate regulations to “govern” the recycle of filter backwash and other liquid residuals within the treatment process of public utilities. The goal of this rule is to ensure that the requirement for 2-log removal of Cryptosporidium set forth in the Interim Enhanced Surface Water Treatment Rule (IESWTR) and the Long-Term 1 ESWTR is not jeopardized by recycle practices. This will be accomplished by requiring all recycle flows to pass through the conventional or direct filtration treatment train in its entirety unless an alternate plan is approved by the Primacy Agency. The operational data and process information made available to the Primacy Agency under this rule will allow the Agency to identify systems susceptible to hydraulic surges of recycle flow. The Filter Backwash Recycling Rule provisions apply to conventional and direct filtration surface water and groundwater systems under the direct influence of surface water (GWUDI) that practice recycle regardless of the size of population served. For the purpose of this regulation, “recycle” refers to three recycle streams - spent filter backwash water, sludge thickener supernatant, and liquids from the dewatering processes.

Information to include when notifying Primacy Agency of Recycling Practices include a plant schematic showing:

- 1) The origin of all recycle flows;
- 2) Hydraulic conveyance used to transport recycle flows;
- and
- 3) Location when recycle flows are returned to the treatment plant.

Information to maintain on-site for Primacy Agency review includes:

- 1) Copy of recycle notification to State
- 2) List of recycle flows
- 3) Frequency of return of recycle flows
- 4) Average backwash flow rate through the filters
- 5) Maximum backwash flow rate through the filters
- 6) Average duration of the filter backwash process (minutes)
- 7) Maximum duration of the filter backwash process (minutes)
- 8) Typical filter run length
- 9) Written summary of how filter run length is determined
- 10) Type of treatment provided for recycle flow
- 11) Physical dimensions of the equalization/treatment units
- 12) Typical and maximum hydraulic loading rates for equalization/treatment units
- 13) Type of treatment chemicals used
- 14) Average dose and frequency of use of chemicals
- 15) Frequency at which solids are removed from treatment units



If you have any questions on the information provided in this handout or additional questions concerning USEPA drinking water regulations, contact Wayne Gerszewski, PE at 701-746-8087 (Grand Forks), Russ Sorenson, PE at 701-221-0530 (Bismarck), Grant Meyer, PE at 763-463-5036 (Minneapolis), Nate Weisenburger, PE at 406-268-0626 (Great Falls), or Brian Bergantine, PE at 218-299-5610 (Moorhead).