



FILTER BACKWASH RECYCLING RULE RECORDKEEPING FORM

SYSTEM NAME _____

PWSID _____ OPERATING PERIOD¹ _____

Type of Recycle Stream	Frequency at which flow is returned ²
Spent Filter Backwash	
Thickener Supernatant	
Liquids from Dewatering Process	
Other	
Other	

Filter Information	Filter Number ³			
	Example Filters 1-6			
Average Duration of Backwash (in minutes)	20			
Maximum Duration of Backwash (in minutes)	22			
Average Backwash Flow ⁴ (in gpm)	2,000 gpm			
Maximum Backwash Flow ⁴ (in gpm)	2,000 gpm			
Run Length Time of Filter ⁵ (include units)	36 hrs			
Criteria for Terminating Filter Run ⁶	Taken off-line when filter effluent turbidity =0.2 NTU			

Is treatment or equalization provided for recycle flows? _____ Yes _____ No

If yes, complete the following table.

Type of Treatment Provided	Example Spent filter backwash holding tank	
Physical Dimensions of Unit	100' x 100' x 10' deep	
Typical Hydraulic Loading Rate	20 gpm/ft ²	
Maximum Hydraulic Loading Rate	20 gpm/ft ²	
Type of Chemical Used	Polymer	
Average Dose of Chemical (mg/L)	0.2 mg/L	
Frequency of Chemical Addition	During backwash events- 4 times per day	
Frequency of Solids Removal	Once per month	

See instructions on back.

Instructions

The data on the form should describe the typical recycle practice. The typical recycle practice should be evaluated at least once per year.

1. Note the Operating period on the form. The operating period is the start date and end date for which the information on the form is applicable. Since the typical recycle practice should be evaluated at least once per year, the operating period should be a maximum one year time period. If changes are made to the typical recycle practice, a new form should be completed and the old form must be kept on file.
2. The frequency at which the recycle stream is returned can be described as continuous, once a day, or as another frequency.
3. Fill out all information for each of your filters. If some or all filters are operated the same, note the appropriate filter numbers.
4. The backwash flow is obtained by multiplying filter surface area (in ft²) by backwash rate (gpm/ft²). Use the average backwash rate to get the average flow and the maximum backwash rate to get the maximum flow. If the flow is varied throughout the backwash process, then the average can be computed on a time-weighted basis as follows:

$$\frac{(\text{Backwash Rate 1 X Duration 1}) + (\text{Backwash Rate 2 X Duration 2}) + \dots}{\text{Duration 1} + \text{Duration 2} + \dots}$$

5. The filter run length time is the sum of the time that the filter is producing water between backwashes.
6. Describe how run length time is determined. For example, is the run length based on head loss across the filter, turbidity levels of filter effluent, a predetermined amount of time, or another method?