

FILTER BACKWASH RECYCLING RULE RECORDKEEPING FORM

SYSTEM NAME _____

PWSID _____ Operating Period¹ _____

Check with your State or Primacy Agency to make sure this form is acceptable.

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			
	<i>Example Filters 1-6</i>			
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	<i>Taken off-line when filter ef- fluent turbidity =0.2 NTU</i>			

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

If yes, complete the following table.

Type of Treatment Provided	<i>Example Spent filter backwash holding tank</i>	
Physical Dimensions of Unit	<i>100' x 100' x 10' deep</i>	
Typical Hydraulic Loading Rate	<i>20 gpm/ft²</i>	
Maximum Hydraulic Loading Rate	<i>20 gpm/ft²</i>	
Type of Chemical Used	<i>Polymer</i>	
Average Dose of Chemical (mg/L)	<i>0.2 mg/L</i>	
Frequency of Chemical Addition	<i>During backwash events- 4 times per day</i>	
Frequency of Solids Removal	<i>Once per month</i>	

See instructions on back.

Instructions

1. Note the operating period for the information provided. Check with your State or Primacy Agency for required operating period.
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?