CLAIMS

1. A method for controlling slime on a separation membrane, the method comprising incorporating a stabilized hypobromous acid composition in a trihalomethane precursor-containing feed water or wash water supplied to a membrane separation apparatus with a separation membrane,

wherein the stabilized hypobromous acid composition comprises either

(a) (i) a bromine-based oxidizing agent, or a reaction product of a bromine compound and a chlorine-based oxidizing agent; and

(ii) a sulfamic acid compound; or

(b) a reaction product of (a)(i) and (a)(ii),

wherein the concentration of the trihalomethane precursor in the feed water or wash water, as a trihalomethane formation potential, is at least 0.01 mg/L, and

wherein the separation membrane is a reverse osmosis membrane or a nanofiltration membrane which is a polyamide-based polymer membrane.

2. A method according to Claim 1, wherein the stabilized hypobromous acid composition comprises either a mixture of bromine and a sulfamic acid compound, or a reaction product of bromine and a sulfamic acid compound.

3. The method for controlling slime on a separation membrane according to Claim 2, wherein the bromate concentration in the stabilized hypobromous acid composition is less than 5 mg/kg.

4. The method for controlling slime on a separation membrane according to any one of Claims 1 to 3, wherein the trihalomethane precursor comprises humins.

5. The method for controlling slime on a separation membrane according to any one of Claims 1 to 4, wherein the feed water or wash water also comprises bromide ions.

6. The method for controlling slime on a separation membrane according to Claim 5, wherein the bromide ion concentration in the feed water or wash water is at least 5 mg/L.

7. The method for controlling slime on a separation membrane according to any one of Claims 1 to 6, wherein the membrane separation apparatus with a separation membrane is a membrane separation apparatus that undergoes both operating periods and operating downtimes, and during an operating downtime:

the bromine-based oxidizing agent, or the reaction product of a bromine compound and a chlorine-based oxidizing agent is added,

the bromine-based oxidizing agent, or the reaction product of a bromine compound and a chlorine-based oxidizing agent, and the sulfamic acid compound are added,

the reaction product of a sulfamic acid compound with a bromine-based oxidizing agent, or with a reaction product of a bromine compound and a chlorine-based oxidizing agent is added, or

the reaction product of bromine and a sulfamic acid compound is added.

8. The method for controlling slime on a separation membrane according to Claim 7, wherein a pH of the water introduced into the membrane separation apparatus is 5.5 or higher.

9. The method for controlling slime on a separation membrane according to Claim 6 or 7, wherein the water introduced into the membrane separation apparatus is at least one of seawater and salt water.