[CLAIMS]

[Claim 1]

A method for operating a water system having a reverse osmosis membrane device to obtain concentrated water and permeated water, the method comprising:

a first step for intermittently adding an oxidation-based slime inhibitor and intermittently supplying water to be treated containing the oxidation-based slime inhibitor to a reverse osmosis membrane device; and

a second step for adding an organic-based slime inhibitor at least during a period other than the addition period of the first step and supplying the water to be treated containing the organic-based slime inhibitor to a reverse osmosis membrane device,

wherein an addition concentration of the oxidation-based slime inhibitor with respect to the water system is adjusted to be higher than an addition concentration of the organic-based slime inhibitor with respect to the water system,

wherein the addition concentration of the oxidation-based slime inhibitor with respect to the water system is 0.1 to 600 mg/L of the water system in terms of total chlorine concentration,

wherein the total chlorine concentration is determined in accordance with JIS K 0400-33-10: 1999,

wherein the addition concentration of the organic-based slime inhibitor with respect to the water system is 0.01 to 100 mg (as chemical mass)/L of the water system,

wherein the first step has a first intermittent addition period per unit and a first addition-free period per unit, and the first intermittent addition period per unit is shorter than the first addition-free period per unit,

wherein the oxidation-based slime inhibitor is a chemical containing one or more combined halogen compound selected from chlorosulfamic acid, chlorosulfamate, bromosulfamic acid, and bromosulfamate,

wherein the organic-based slime inhibitor is selected from one or more of isothiazoline compounds, halocyanoacetamide compounds, aldehyde compounds, or oxime compounds, or a chemical containing one or more compounds selected from these, and

wherein the water to be treated containing the oxidation-based slime inhibitor and/or the organic-based slime inhibitor is separated into concentrated water and permeated water by the reverse osmosis membrane.

[Claim 2]

The method for operating a reverse osmosis membrane device according to Claim 1,

wherein the oxidation-based slime inhibitor is added once or more during three days of an operation period.

[Claim 3]

The method for operating a reverse osmosis membrane device according to Claim 1 or 2,

wherein the oxidation-based slime inhibitor is added for 10 minutes or longer per addition.

[Claim 4]

A slime control method that is applied to a water system having a reverse osmosis membrane device, the method comprising:

a first step for intermittently adding an oxidation-based slime inhibitor and intermittently supplying water to be treated containing the oxidation-based slime inhibitor to a reverse osmosis membrane device; and

a second step for adding an organic-based slime inhibitor at least during a period other than the addition period of the first step and supplying the water to be treated containing the organic-based slime inhibitor to a reverse osmosis membrane device,

wherein an addition concentration of the oxidation-based slime inhibitor with respect to

the water system is adjusted to be higher than an addition concentration of the organic-based slime inhibitor with respect to the water system,

wherein the addition concentration of the oxidation-based slime inhibitor with respect to the water system is 0.1 to 600 mg/L of the water system in terms of total chlorine concentration, wherein the total chlorine concentration is determined in accordance with JIS K 0400-33-10: 1999,

wherein the addition concentration of the organic-based slime inhibitor with respect to the water system is 0.01 to 100 mg (as chemical mass)/L of the water system,

wherein the first step has a first intermittent addition period per unit and a first addition-free period per unit, and the first intermittent addition period per unit is shorter than the first addition-free period per unit,

wherein the oxidation-based slime inhibitor is a chemical containing one or more combined halogen compound selected from chlorosulfamic acid, chlorosulfamate, bromosulfamic acid, and bromosulfamate, and

wherein the organic-based slime inhibitor is selected from one or more of isothiazoline compounds, halocyanoacetamide compounds, aldehyde compounds, or oxime compounds, or a chemical containing one or more compounds selected from these.