Standards

(defined in the SAB Report, p. 15)

10x IMO refers to concentration limits that are 10 times smaller (*i.e.* more stringent) than the IMO D-2 limits, for one or both of the organism size classes.

Similarly, 100x IMO refers to limits that are 100 times smaller than the IMO D-2 limits, for one or both of the organism size classes.

	> 50 µm organisms	10-50 µm organisms
IMO	> 10/m^3	> 10/mL
10x IMO	> 1/m^3	> 1/mL
100x IMO	> 0.1/m^3	> 0.1/mL

Ecochlor treatment system

(Filtration & Chlorine Dioxide)

> 50 µm organisms

Standards

10x IMO: less than 1 organism/m^3
100x IMO: less than 0.1 organism/m^3

Test Results:
Organism Concentration in Treated Discharge

Trial #	live organisms/m^3
7	0.0
8	0.3
9	0.3
10	0.0
11	0.0
12	0.0
13	0.0
14	0.0
15	0.0
16	0.0

SAB: It has not been demonstrated that any type of treatment system can meet a 10x IMO standard.

Even with reasonable and feasible improvements, such as increasing the biocide concentrations, none of the types of treatment systems considered by the SAB could meet a 100x IMO standard. Instead, wholly new types of treatment systems will need to be developed.

Ecochlor treatment system

(Filtration & Chlorine Dioxide)

10-50 µm organisms

Standards

10x IMO: less than 1 organism/mL
100x IMO: less than 0.1 organism/mL

Test Results:
Organism Concentration in Treated Discharge

Trial #	live organisms/mL
7	< 0.11
8	< 0.11
9	< 0.11
10	< 0.11
11	< 0.11
12	< 0.11
13	< 0.11
14	< 0.11
15	< 0.11
16	< 0.11

SAB: It has not been demonstrated that any type of treatment system can meet a 10x IMO standard.

Even with reasonable and feasible improvements, such as increasing the biocide concentrations, none of the types of treatment systems considered by the SAB could meet a 100x IMO standard. Instead, wholly new types of treatment systems will need to be developed.