CLAIMS

1. A method for scrubbing exhaust gases from an engine of a marine vessel, wherein:

- the exhaust gases (1) are sent to a desulfurization scrubber (100), to which a first seawater flow (2') is admitted,

- the sulfur dioxide concentration is permanently measured in the gases (7) purified by the scrubber (100), the flow rate of the first seawater flow (2') being controlled from this measurement of the sulfur dioxide concentration,

- the effluents of the scrubber (100) are collected in an oxidation device (300), to which an airflow (3) is admitted and to which an iron salt flow (6) is directly admitted or via the scrubber (100),

- the redox potential is permanently measured at the outlet of the oxidation device (300), at least one of the airflow rate (3) and the flow rate of the iron salt flow (6) being controlled from this measurement of the redox potential,

- the flow (4) leaving the oxidation device (300) is sent to a post-dilution device (500), which is located at least ten meters lower than the scrubber (100) and to which a second seawater flow (2'') is admitted, and

- the pH is permanently measured at the outlet of the post-dilution device (500), the flow rate of the second seawater flow (2'') being controlled from this measurement of the pH.

2. The method according to claim 1, wherein the iron concentration in the effluents of the scrubber (100) is maintained between 1 and 10 µmoles/L.

3. The method according to one of claims 1 or 2, wherein the iron salt flow (6) is mixed with the first seawater flow (2').

4. The method according to one of claims 1 or 2, wherein the iron salt is ferric chloride.

5. The method according to claim 1, wherein an alkaline agent flow (8) is admitted to the scrubber (100).

6. The method according to claim 5, wherein, when the accumulated flow rate of the first and second seawater flows (2', 2'') is limited to below the controlled value from the measurement of the sulfur dioxide concentration and from the measurement of the pH, the flow rate of the alkaline agent flow (8) is controlled from the measurement of the sulfur dioxide concentration and from the measurement of the pH.

7. The method according to one of claims 5 or 6, wherein the alkaline agent is a magnesia $Mg(OH)_2$.

8. An installation for scrubbing exhaust gases from an engine of a marine vessel, which installation comprises:

- a desulfurization scrubber (100), which is adapted for receiving the exhaust gases (1) and which is adapted for being supplied with a first seawater flow (2'),
- first measurement means (800) adapted for permanently measuring the sulfur dioxide concentration in the gases (7) purified by the scrubber (100),
- first control means adapted for controlling the flow rate of the first seawater flow (2') from the measurement provided by the first measurement means,
- an oxidation device (300), which is adapted for connecting the effluents of the scrubber (100), which is adapted for being supplied with an airflow (3) and which is adapted for directly receiving or via the scrubber (100), an iron salt flow (6),
- second measurement means (400) adapted for permanently measuring the redox potential at the outlet of the oxidation device (300),
- second control means adapted for controlling at least one of the airflow rate (3) and the flow rate of the iron salt flow (6) from the measurement provided by the second measurement means,
- a post-dilution device (500), which is adapted for receiving the flow (4) leaving the oxidation device (300), which is located at least ten meters lower than the scrubber (100) and which is adapted for being supplied with a second seawater flow (2''),
- third measurement means (700) adapted for permanently measuring the pH at the outlet of the post-dilution device (500), and
- third control means adapted for controlling the flow rate of the second seawater flow (2'') from the measurement provided by the third measurement means.

9. The installation according to claim 8, wherein the oxidation device (3) is integrated to the bottom of the desulfurization scrubber (100).

10. The installation according to one of claims 8 or 9, which installation further comprises a means (8) for admitting an alkaline agent to the desulfurization scrubber (100).