CLAIMS:

1. A method for scrubbing a marine vessel flue gas containing particulates and sulfur dioxide comprising:

spraying an alkaline fluid, the alkaline fluid comprising sodium bicarbonate, sodium carbonate or a combination thereof, into the flue gas to produce a saturated flue gas stream containing the alkaline fluid;

flowing the saturated flue gas stream containing the alkaline fluid through a venturi to cause the particulates in the flue gas to impact the alkaline fluid and react at least a portion of the sulfur dioxide with the alkaline fluid.

2. The method of claim 1, wherein the alkaline fluid is added in sufficient quantities to enable the flue gas to flow through the venturi under suction without the assistance of a fan.

3. The method of claim 1, wherein the alkaline fluid is sprayed co-currently with the flue gas stream in the direction of the venturi.

4. The method of claim 1, further comprising collecting and recycling the alkaline fluid.

5. A system for scrubbing a marine vessel flue gas comprising:

a flue gas stream containing particulates and sulfur dioxide produced from the marine vessel;

an alkaline fluid spraying system adapted to spray an alkaline fluid, the alkaline fluid comprising sodium bicarbonate, sodium carbonate or a combination thereof, into the flue gas stream to produce a saturated flue gas stream containing the alkaline fluid;

a venturi adapted to receive the saturated flue gas stream and impact the particulates in the flue gas onto the fluid and react at least a portion of the sulfur dioxide with the alkaline fluid.

6. The system of claim 5, wherein the alkaline fluid spraying system sprays the alkaline fluid co-currently with the flue gas stream in the direction of the venturi.

7. The system of claim 5, wherein the system operates in a closed loop mode.

8. The system of claim 5, where in the system is switchable between an open loop and a closed loop mode.