

**METHODS AND SYSTEMS FOR MARINE SULFUR DIOXIDE EMISSION
REDUCTION**

ABSTRACT

Improved methods and systems are provided for the on-board removal of sulfur dioxide generated by a marine vessel. The method includes spraying an alkaline fluid into the flue gas to produce a saturated flue gas stream containing the alkaline fluid; and 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.

(FIG. 1)