

Consulting  
Engineering  
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Research



## Reducing Emissions from Shipping Operations

In order to reduce emissions from shipping operations, Appendix VI of the MARPOL Agreement was created and came into force on 19 May 2005. It contains specific regulations for the limitation and reduction of nitrogen oxide (NO<sub>x</sub>), sulphur oxide (SO<sub>x</sub>) and particulate mass emissions as well as the emission of substances causing a depletion of the ozone layer. These international regulations are supplemented by the requirements stated in EU directive 2005/33/EC which sets out the reduction of the maximum sulphur content of different marine fuels.

On this basis, air pollutant emissions caused by shipping operations, in particular sulphur oxide and nitrogen oxide emissions, have to be significantly reduced. Müller-BBM can support you in meeting these more stringent requirements..

The experts of Müller-BBM have long-term experience in the field of emission measurements using continuous automatic monitoring systems and/or reference methods from Müller-BBM laboratories regarding emission components like PM, SO<sub>x</sub>, NO<sub>x</sub>, CO, HCl, ultra trace organic components, heavy metals etc.



Installation of a desulphurization unit.



Your personal consultant

**Bernd Hör**

Müller-BBM GmbH  
Branch Office Berlin  
Körnerstrasse 48c  
12157 Berlin  
Germany

Phone +49 30 217975-52

Fax +49 30 217975-35

Bernd.Hoer@mbbm.com

### Müller-BBM – Comprehensive Solutions from a Single Source

As an international engineering consultancy with more than 400 employees, Müller-BBM is represented at eleven locations in Germany. Müller-BBM's specialists have been advising international clients since 1962, being leaders in the fields of acoustics, building physics and environment protection. Our customers benefit from our knowhow. As notified measuring body in Germany according to § 29b of the Federal Immission Control Act (BImSchG) and with an accredited testing laboratory, our services cover the entire spectrum of investigation and control measures.

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