Reducing air pollution from ships

The potential of a Mediterranean Emission Control Area (ECA)

Why would France undertake action for designating a Mediterranean ECA?

March, 28th 2017
Rome

Cécile RAFAT
Ship pollution prevention officer
Directorate for Maritime Affairs
French Ministry of The Environment
France
Strategic location and experience on implementing SOx regulations
Strategic location
Various and large coastlines
coastlines within and outside SECA

![Map showing Sulphur Emission Control Area (SECA) and coastal lines](image)

- Sulphur Emission Control Area (SECA)
- States with coastline within SECA
- States with coastline partly within SECA
- States with coastline outside SECA

Coastline SECA
Entrance of SECA
Coastlines outside SECA
Strategic location and experience on 0,1 %

Coastline within SECA

English Channel-North Sea:
- 0,1 % of sulphur content for ships sailing in the SECA area since 2015

Coastlines outside SECA

Atlantic-Mediterranean Sea:
- 3,5 % of sulphur content (0,5 % in 2020)
- 1,5 % of sulphur content for passenger ships (EEZ)
- 0,1 % of sulphur content at berth when ships being at berth more than 2 hours
Application and implementation of sulphur regulations (MARPOL VI and EU regulation)

Case of Cruise ships

How implement the judgment of the ECJ?
- ECJ, 23 January 2014, Manzi and Compagnia Naviera orchestra -

France has questioned the European Commission

France decided 1,5% of sulphur content would apply to all cruise ships

Inspections

2016

654 documentary checks
225 in the Mediterranean Sea

163 sampling and analysis
59 in the Mediterranean Sea

8 non-compliances
3 in the Mediterranean Sea (1 cruise ship)
Working toward more efficient ship monitoring

Remote targeting

- France has been selected by EMSA for RPAS project (Remotely Piloting Aircraft Systems)

- What’s RPAS?
  - A tool for maritime surveillance, pollution monitoring, **emission monitoring**
  - An emission measurement tool: Sox; Co2

- Tests in France are planned for summer or autumn 2017

- Benefits?
  - Monitoring behaviours at sea
  - Increasing the likelihood of getting caught of non compliant ships
  - Targeting and enhancing Sox inspections by Port State Control
Working toward more efficient ship monitoring

**Fuel calculator**

- France is working on developing a fuel calculator (FC)
- FC is a tool used to control if a ship is compliant when it enters into a SECA area

**Benefits**

- Monitoring behaviours at sea
- Improving information for sanctions, FC is a useful tool for judicial proceedings
The French initiative
launch of an assessment for a
Mediterranean ECA
Political announcements

2016, December – COP 22, Marrakech
Monaco’s declaration in favour of a Mediterranean ECA

France’s official announcement for an assessment

2017, March – 5th sulphur Committee, EC
France’s official announcement for an assessment

2017, March – Union For Mediterranean
France’s official announcement for an assessment

All funds for the assessment will be provided by France
ECA procedures
French capacities

Experience: France took part in IMO process for designating ECA

- English Channel-North Sea NECA (2016): Entry into force on the 1st of January 2021

Technical Expertise for designating a Mediterranean ECA (following criteria of MARPOL VI)

- Automatic Identification system (AIS) data analysis
- Definition of emission factor
- Meteorological parameters and emissions modeling capabilities (including dispersion)
- Analysis of the impacts on human health and the environment
Other French initiatives
Working on reducing particulate matter (PM) emissions from ships

Which adverse effects?

Which particules?

Which types of ship?

Which technologies?

2017 Launch of working program

roadmap for actions France could undertake to prevent and reduce PM emissions from ships (consolidation of R&D, proposal for regulation, undertake works at IMO)
Working on alternative fuel distribution in Ports

Onshore power supply

Port of Marseille:

- One terminal is equipped since July 2016
- 3 French ferries can use power supply at berth

Benefits:

- No emission any more at berth (Sox, Nox, PM)
- Reduction of nuisances (onboard, onshore)
## Working on alternative fuel distribution in Ports

### Onshore power supply

Environmental performance expected in Marseille

<table>
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<tr>
<th>Substance</th>
<th>Cut of vehicule</th>
<th>Equivalent</th>
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<tbody>
<tr>
<td>CO₂</td>
<td>4 298 T CO₂ equivalent/an</td>
<td>2051</td>
</tr>
<tr>
<td>SO₂</td>
<td>2,7 T/an</td>
<td></td>
</tr>
<tr>
<td>NO₂</td>
<td>30,9 T/an</td>
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</tr>
<tr>
<td>PM</td>
<td>4,8 T/an</td>
<td>1935</td>
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</tbody>
</table>

Source: Ademe – April 2012  
Source: AirPaca – November 2013
Working on alternative fuel distribution in Ports

Liquefied natural gas (LNG)

- National roadmap published in July 2016 for deploying LNG as marine fuel in France
- Projects for refueling infrastructure for LNG
Thank you for your attention