

- Marpol Annex VI controls air emissions from ships
 - Ozone depleting substances
 - Nitrogen oxides
 - Sulfur oxides and particulate matter
 - Volatile organic compounds
- Implemented in the US via the Act to Prevent Pollution from Ships ("APPS")

North American ECA

- Effective as of August 1, 2012
- Limits the sulphur content of any fuel oil used on board ships within the ECA
 - 1.0% prior to January 1, 2015
 - 0.1% on and after January 1, 2015
- Generally 200 nautical miles from the US coast
- Global standard is currently 3.5%

Problems with LSFO

- Availability limited to none in US
- Compatibility different blends
- Operations (e.g. change over thermal shock)
- Quality (e.g. alumina and silica engine damage)
- Cost (up to 50% more per ton.)
- Possible breach of engine warranty issues
- Charter party disputes (time charterer fails to procure LSFO or owner fails to correctly change over).

Compliance – Equivalent Methods

- Marine Gas Oil ("MGO") expensive, change over problems with temperature differential for HSFO
- Scrubbers: many shipowners hesitant, cost (\$1.5-3 M), and can breakdown while ship in the ECA then what?
- LNG propulsion: little to no emissions, but operational, training and safety issues

Fuel Oil Non-Availability Reports ("FONAR")

- Voluntary disclosure
 - Requires comprehensive documentation of "best efforts," (e.g. correspondence with bunker suppliers and brokers; Note of Protest to fuel supplier if fuel does not meet specifications)
- NON-AVAILABILITY IS A MITIGATING FACTOR, BUT IT IS STILL A VIOLATION - A FONAR IS NOT A FREE PASS!
- Other mitigating factors:
 - Purchase of complaint fuel at first possible opportunity
 - Use of "next cleanest fuel" (although bunker brokers say no one requests this)
 - Efforts to overcome technical incompatibility (e.g. reconfiguring fuel tanks)

EPA Interim Guidance and FAQs

- Explains how to establish compliance
 - Use ECA-compliant low sulphur fuel
 - Maintain records
 - Bunker Delivery notes
 - Fuel oil change-over logbook
 - Retain fuel samples for possible testing
- Delay or deviation not required
- No "innocent passage" exception

Enforcement

- Coast Guard and EPA authorized under APPS, Clean Air Act and a Memorandum of Understanding
- Coast Guard Port State Control Inspections
 - Focus on record-keeping (e.g. fuel oil change-over entries in Oil Record Books and Bunker Delivery Receipts)
- Coast Guard and EPA boarded vessels in ports of Los Angeles and Long Beach in June 2014
 - Samples from fuel service tanks analyzed
- EPA has also been experimenting in Chesapeake Bay with flyovers that collect emissions from smokestacks
- Trident Alliance (consortium of shipowners) is encouraging strict enforcement to maintain competitive balance

Subpoenas

- February 2014: EPA served extensive administrative subpoenas on four large companies that submitted 20 - 40 FONARs each between August 2012-February 2014
 - All company environmental policies and procedures
 - Correspondence with every bunker supplier at every port
 - Fuel tank soundings from 15 days prior to ECA entry through ECA exit
 - Calculate distance traveled and fuel consumed while within ECA
 - Documentation of prior bunkering events
 - Voyage orders correspondence
 - List dates of every ECA entry for every vessel in fleet
- Responses must be certified; significant consequences for submitting false statements and information

APPS – Detentions or Denial of Entry

- If reasonable cause exists to believe that a ship violated ECA, then Customs and Border Protection ("CBP") may refuse or revoke clearance to proceed from a US port absent a bond or other suitable security
- Entry to a US port may be denied unless conditions such as implementation of an Environmental Compliance Program are met

Penalties & Fines

Civil penalties

- Up to \$40,000 for each violation and \$8,000 for each false, fictitious, or fraudulent statement or representation in connection with investigations
- Federal regulations also provide for inflation adjustments
- Each day a violation continues constitutes a separate offense

Criminal fines

- Knowing violations are class D felonies
- Companies: up to \$500,000 for each violation
- Individuals: up to \$250,000 for each violation; and 5-10 years imprisonment for each violation

Other Penalties & Fines

Alternative fines

- Applicable in instances where companies gain competitive advantage by "cheating" and not using relatively higher-cost ECA-compliant fuel
- Based upon either pecuniary gain to companies that violate laws or pecuniary loss to other companies that comply with laws

Other Possible Criminal Charges

- Conspiracy
- False Statements Act
- Obstruction of Justice
- Hiding the truth will have worse consequences than the underlying violation!

Investigation & Enforcement - Europe

- Lack of consistent enforcement policy
- Comparatively little (or no) enforcement in European ECA's
- According to the European Commission analysis:
 - There is currently (and in general) a 1/1000 vessel inspection rate for sulphur compliance
 - Fines substantially less than in the US