MOBILE EMISSION MEASUREMENT UNIT

for Marine and Power Source applications

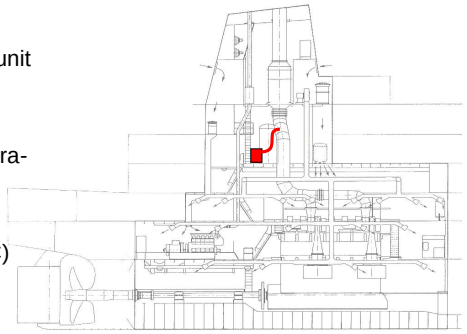
Accurate and legislation compliant measurements of all gaseous emissions:

NO_x, CO, CO_2, SO_2, TOC, O_2, Smoke, Opacity

LME is being certified under ISO 17025, for emission measurements. The ISO specifies the general requirements for the competence of testing and calibration laboratories. LME has long experience in measurements and good knowledge of the emission legislation, is equipped with analysers specified by the relevant ISO, and follows the specified procedures by the ISO standards to measure the pollutants.

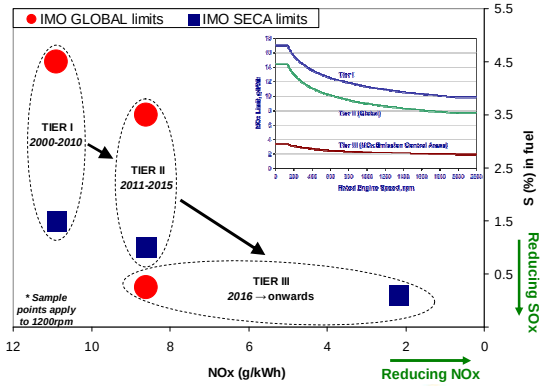
LME Emission measurement mobile unit

The principle of operation of the mobile unit analysers is specified and approved by emission regulation authorities. These principles involve the Non-Dispersive Infra-Red (NDIR for CO_2, CO, SO_2), Chemiluminescence (CLD for NOx), Flame Ionisation Detection (FID for TOC) and Paramagnetism (PM for O_2).

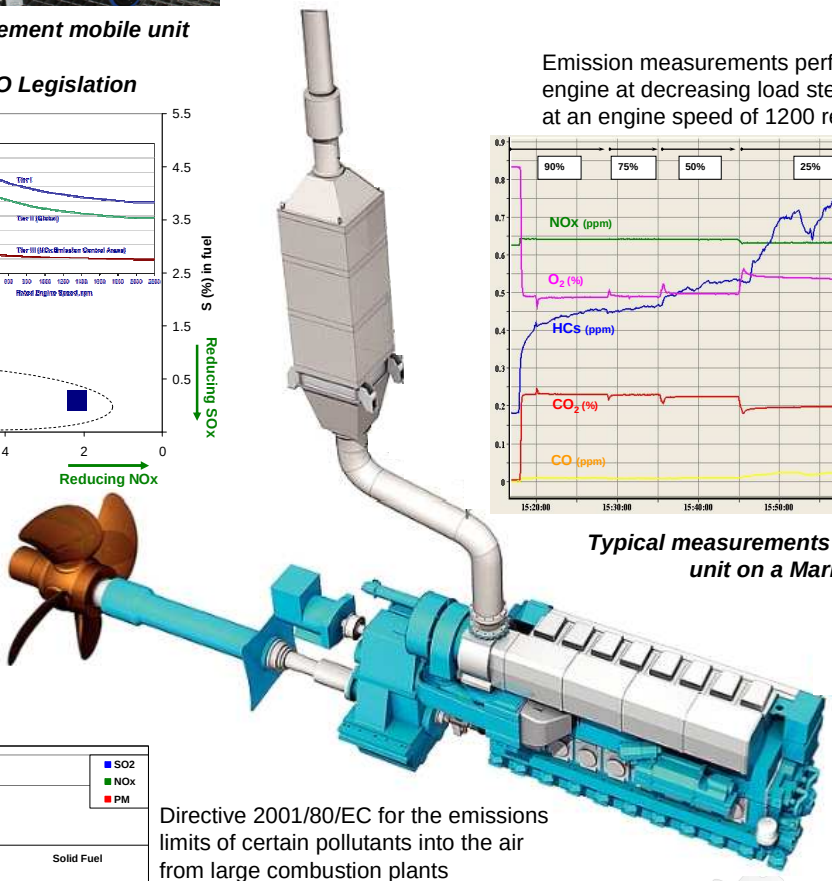


Shipboard applications

Present and Upcoming IMO Legislation

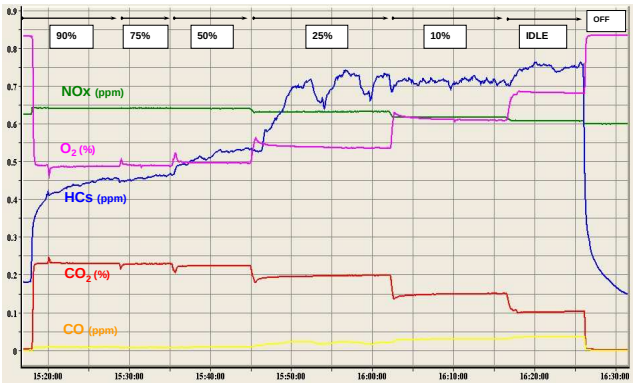


Emission legislation limits by IMO (International Maritime Organisation) /MARPOL MEPC are becoming more and more stringent as TIER I limits are reduced to TIER II (by 20%), and subsequently to TIER III limits (by 80%).

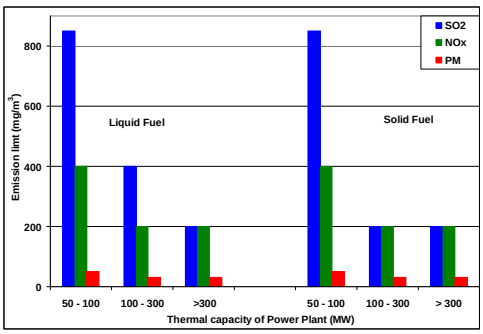


Marine engine and Power generation applications

Emission measurements performed on a marine diesel engine at decreasing load steps (from 90% down to Idle), at an engine speed of 1200 revs/min.



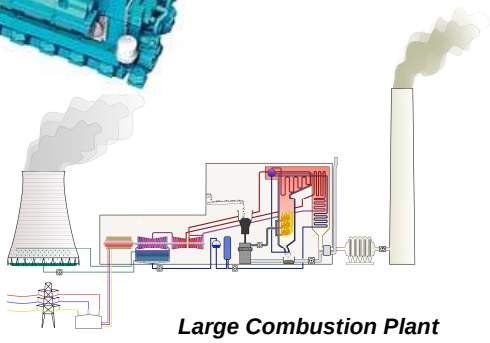
Typical measurements performed with the mobile unit on a Marine Diesel Engine



EU Emission limits for New (after 11/2003) Large Combustion Plants ***(using liquid or solid fuel)***

Directive 2001/80/EC for the emissions limits of certain pollutants into the air from large combustion plants

Emissions measurements (and the relevant process operation parameters such as oxygen content, temperature, pressure and water vapour content) can be performed with the mobile unit on site, at specified (by the legislation) sampling points on the exhaust duct of the engine, and at the stack of a combustion plant.



Large Combustion Plant application

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