



ESSF Sub Group for Exhaust Gas Cleaning Systems – Report to Plenary

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Exhaust Gas Cleaning - Scrubbing

- Sub Group supports scrubbing as an effective technology which can deliver equivalence with combusting low sulphur fuel in accordance with MARPOL VI Regulation 4 and Article 4c of the Sulphur Directive
- Further to sulphur compliance there are carbon benefits to combusting HFO on-board with exhaust gas cleaning relative to de-sulphurising in oil refineries
- Scrubbing is an attractive solution for both existing ships and new build ships, although it is recognised that there will be some existing ships for which retro-fitting will not be practical



Technology Status

There are several technologies which can be applied

- Wet scrubbing, may be open loop, closed loop or hybrid offering both open and closed loop
- Dry scrubbing, unfortunately the suppliers of the only known marine system have gone into liquidation however it is known that the a new supplier will enter the market with the same technology

As an emerging technology there will be further developments, the sub-group is considering all available technologies however it has also concentrated work on wet technology as this is where most of the potential barriers to adoption have been identified



Work Packages

The sub-group has been working on 8 work packages, these cover;

- Sludge produced by scrubbers
- Wash water discharge criteria
- Wash water pH plume verification
- Trials and Commissioning of scrubbers
- Fuel oil quality and availability
- Use of HFO for commissioning of scrubbers
- Operational non-compliance scenarios
- Dry scrubbing technology



The three highest priorities will be presented separately and have been circulated to plenary, these are wash water discharge criteria, trials & commissioning and pH plume verification

Some issues will require submissions to IMO or engagement with Administrations to resolve, sub-group recommends two track approach to develop short term solutions in parallel with long term solutions

Recommendations

The sub-group has identified multiple issues which require resolution to remove perceived obstacles to adopting the technology.

Time is short (January 1st 2015) and it is recommended that plenary support the continued efforts of the sub-group to develop solutions for both immediate and long term application which:

- Assure compliance with the requirements of the Sulphur Directive and MARPOL VI
- Are pragmatic
- Can be implemented
- Support efforts at IMO (eg:MEPC, PPR) and avoids any risk of divergence between EU and IMO requirements



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