

2020: The Ships' Engineers Perspective

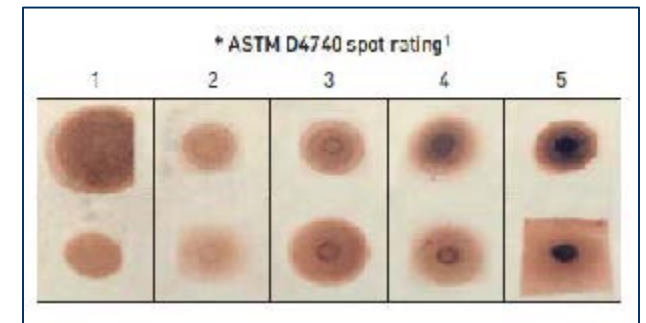
Andy Wright CEng, FIMarEST

IMarEST Representative on Fuels and Exhaust Emissions – MEPC / PPR

**Re-focusing existing
knowledge and expertise
to the perspective of 2020**

Ship Implementation Plan:

- Review of existing arrangements and equipment
- 2020 fuel oil specifications and limitations
- Undertaking required modifications / changes
- Implementation of 2020 Change-over Plan



Bunker Tank Management:

Bunker capacity – set by available empty tanks

Bunker stem segregation

Compatibility ‘Spot Testing’

Bulking remaining quantities of previous stems

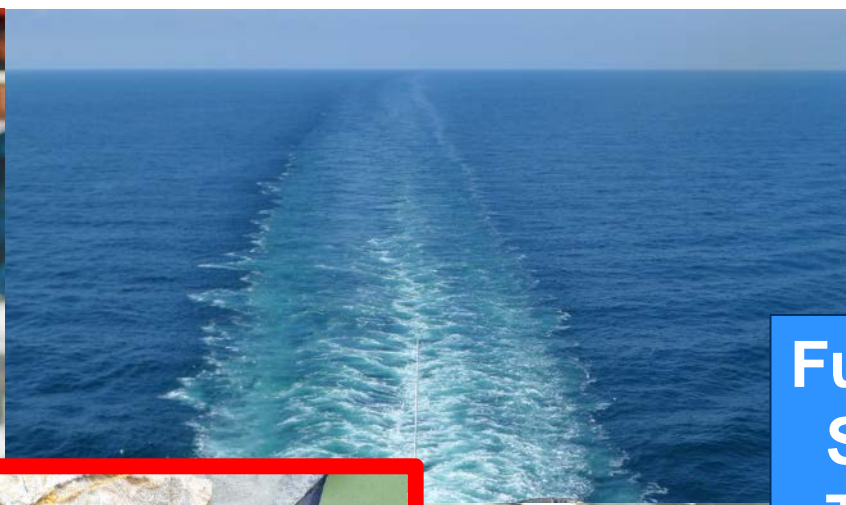
Minimum tank temperatures maintained

**Bunkering: Residual & 'Distillate' Grades
Supplied 'as ordered' ? + BDN, MARPOL Sample
Any specific information provided**

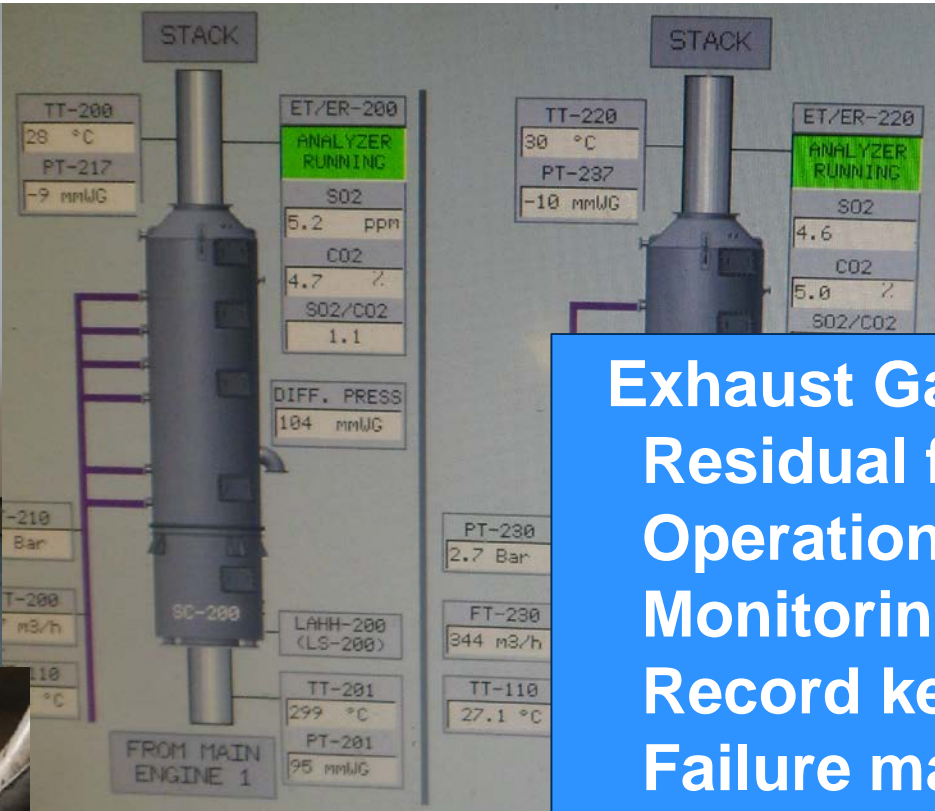


**FONAR, mitigation and
re-establishing compliance**

**Oversight of bunkering operation
Sampling fuel oils as received
Fuel oil management on receipt**




Fuel Oil Management:
Settling & service tanks
Treatment
Purification
Filtration
Temperature control
Injection
Engine performance
-
Fuel switching – ECA
Fuel leakage
Drain line choking
Resolving problems



**Exhaust Gas Cleaning Systems:
Residual fuels unchanged ?
Operation & maintenance
Monitoring devices
Record keeping
Failure management**





Port State Control:
0.50% max S aware - BDN
Sampling fuel oil in use
Sampling fuel oil on board
MARPOL Delivered Sample

EGCS certification & use
Monitoring and records:
Emissions to air
Emissions to sea



Institute of
Marine Engineering,
Science & Technology

IMAREST



2020 Engineer's Tool Kit:

Re-focused knowledge and expertise
Provision of the 'tools' to do the job
Opportunities to use those 'tools'



2020 - Plain Sailing ?

For further information please contact:

The Institute of Marine Engineering, Science and Technology
1 Birdcage Walk
London SW1H 9JJ

technical@imarest.org