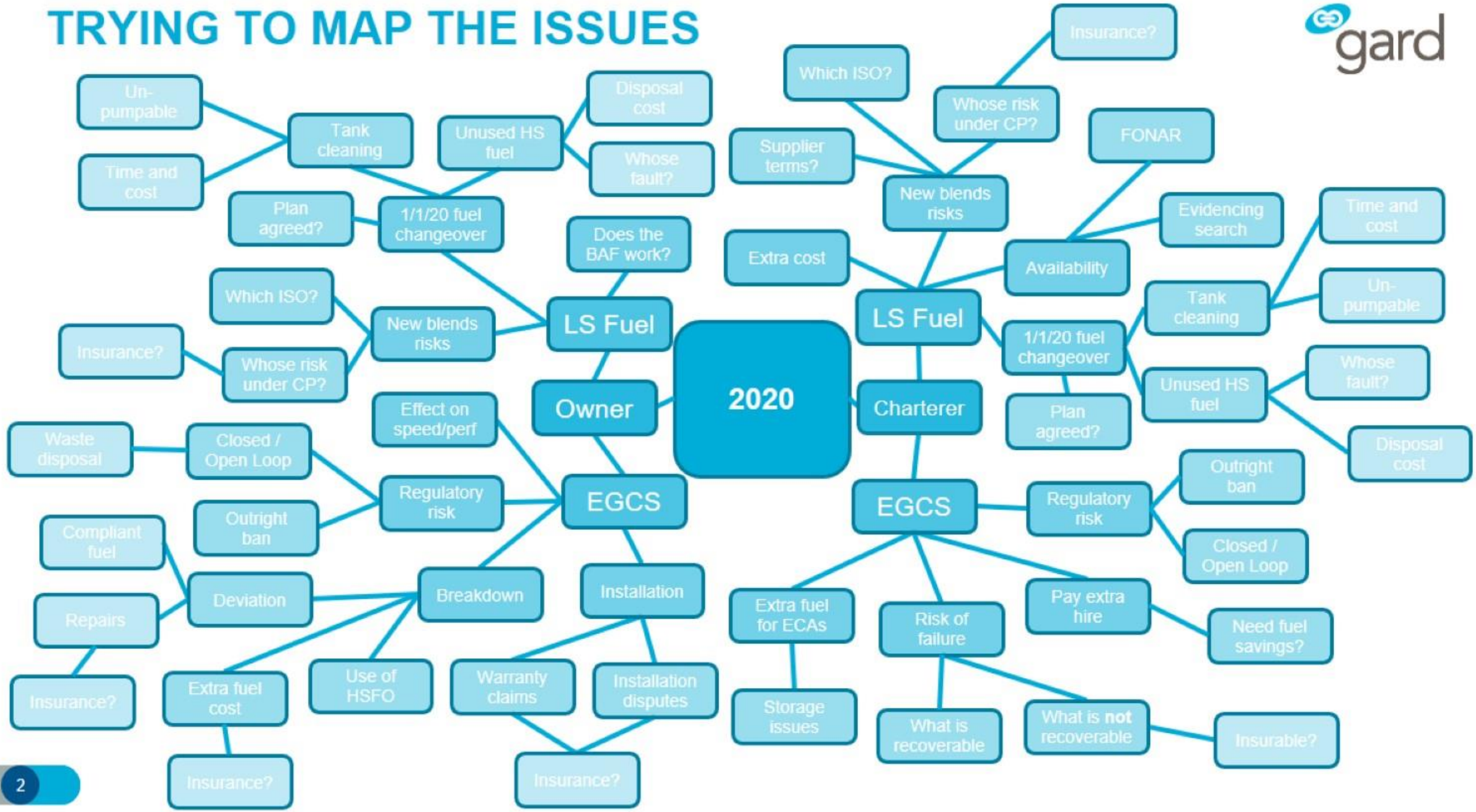
CONSIDERAÇÕES SOBRE COBERTURAS DE C&M E P&I AGORA E APÓS 2020

Flavia Maia – Diretora Geral da Gard Marine & Energy Limited – Escr Rep no Brasil Ltda
Claudia Botero Gotz – Advogada Sênior do Gard (North America) Inc

TRYING TO MAP THE ISSUES

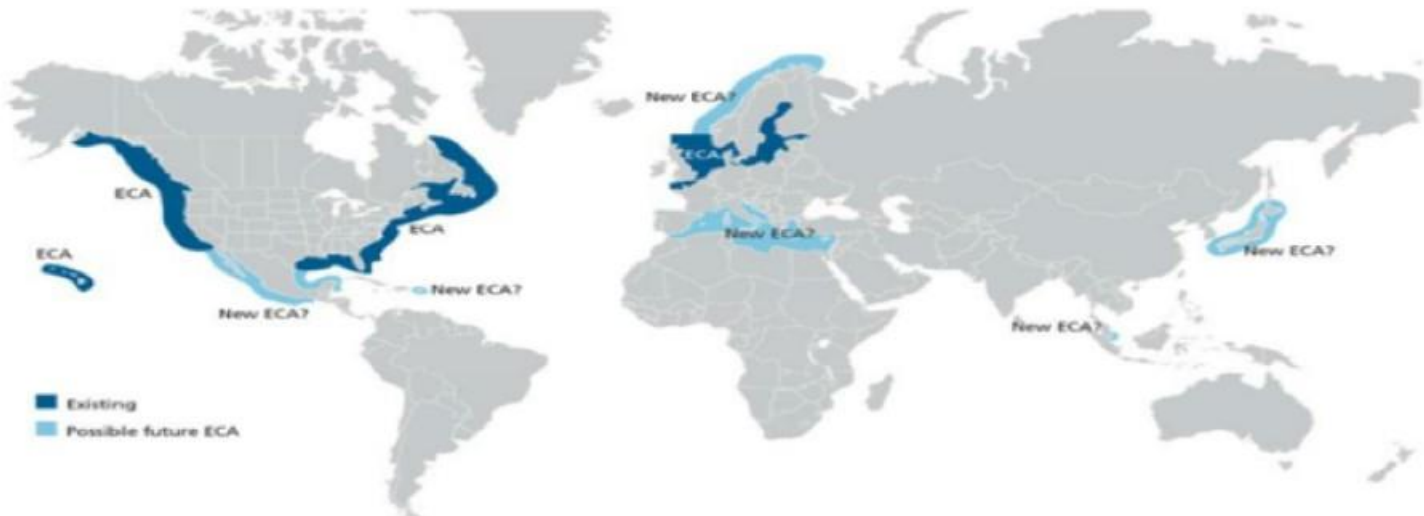


MARPOL ANNEX VI: REGULATION 14

Inside ECA (Emission Control Area): 0,1% m/m since 1 January 2015

Outside ECAs: *Evolution of the limit:*

1. *4.5% m/m (particulate matter by mass) prior to 1 January 2012*
2. *3.5% m/m on and after 1 January 2012*
3. *0.5% m/m on and after 1 January 2020*



A FEW WORDS ABOUT THE OPTIONS

CHOICES HAVE ALREADY BEEN MADE

Compliant Fuel

Alternative Fuels

Exhaust Gas Cleaning System (EGCS)

Distillate (MGO)

Residual (VLSFO)

LNG
Batteries (167)
LPG (11)
Methanol (13)
Hydrogen (2)
Ammonia

3,694 Vessels operating and on order for 2020.

One third are bulkers

75% are retrofits

Source – DNV-GL

COME 1 JANUARY 2020

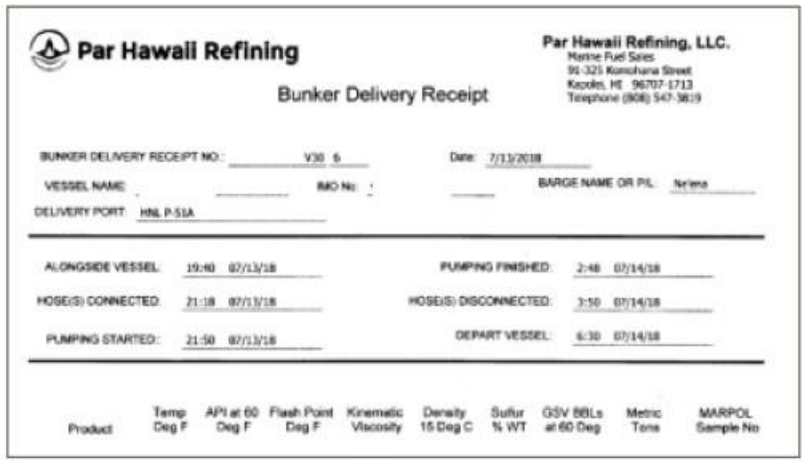
ISSUES

- Availability of compliant fuel?
- De-bunkering of non-compliant fuels.
- Fuel management on board – co-mingling / compatibility / separation.
- Tank cleaning after switching.
- Monitoring and logging emissions.
- Consistency of test methods for sulphur content.
- Consistency of fines levied – may differ from place to place.

RISKS ON THE HORIZON

IMO 2020 - ENFORCEMENT

PORT STATE CONTROL



Par Hawaii Refining

Par Hawaii Refining, LLC.
Marine Fuel Sales
91-325 Komohana Street
Kapolei, HI 96707-1713
Telephone (808) 547-3819

Bunker Delivery Receipt

BUNKER DELIVERY RECEIPT NO.: V30 6 Date: 7/13/2018

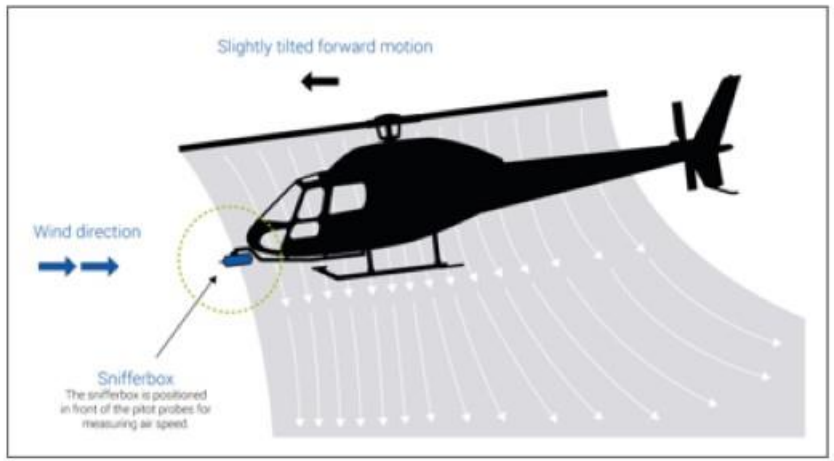
VESSEL NAME: IMO No: BARGE NAME OR PIL: Nirima

DELIVERY PORT: HNL P-51A

ALONGSIDE VESSEL:	19:40 07/13/18	PUMPING FINISHED:	2:48 07/14/18
HOSE(S) CONNECTED:	21:18 07/13/18	HOSE(S) DISCONNECTED:	3:50 07/14/18
PUMPING STARTED:	21:50 07/13/18	DEPART VESSEL:	6:30 07/14/18

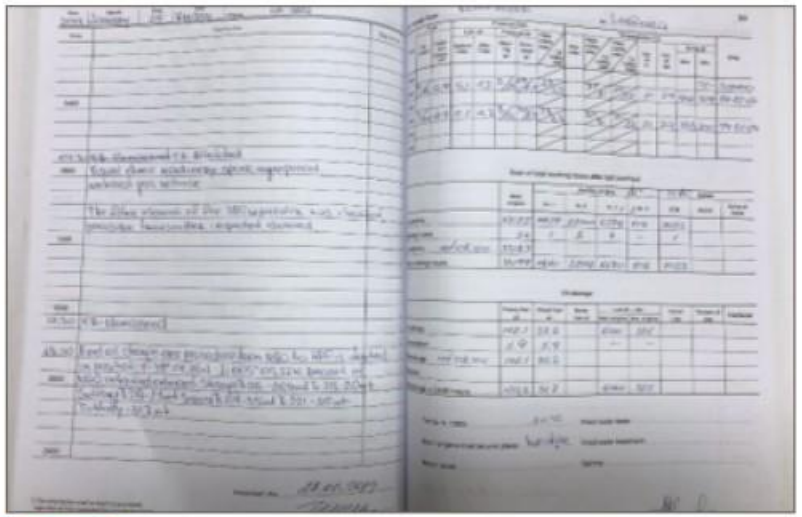
Product	Temp Deg F	API at 60 Deg F	Flash Point Deg F	Kinematic Viscosity	Density 15 Deg C	Sulfur % WT	GSV BBLs at 60 Deg	Metric Tons	MARPOL Sample No

BDN



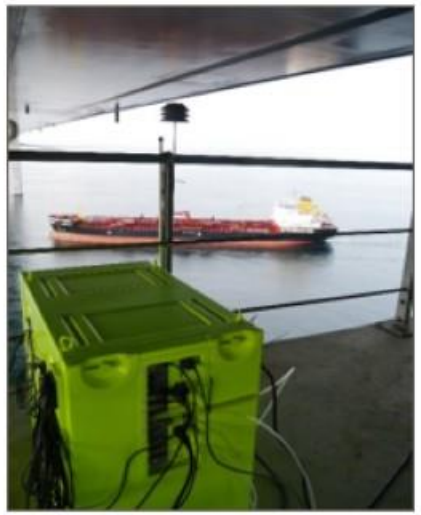
Helicopter fitted with sniffers

Drones



Recordkeeping

Sample testing



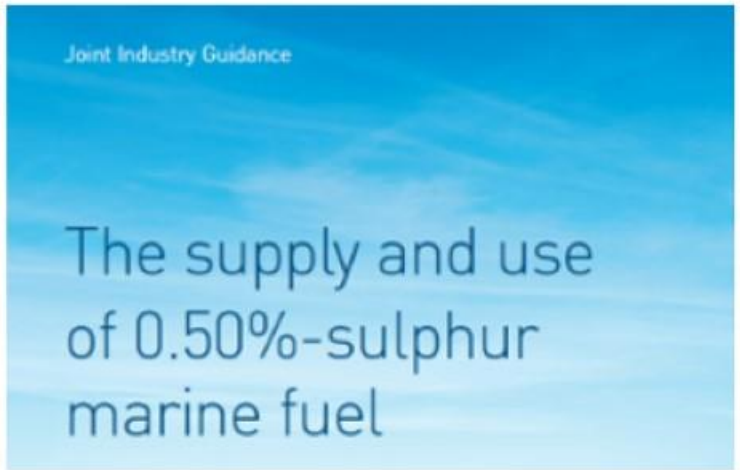
Sniffers below bridges

Shore measurement stations


PENALTY

RISK ON THE HORIZON - INCOMPATIBILITY

VLSFO IS MADE BY BLENDING DOWN THE SULPHUR CONTENT IN RESIDUAL FUEL OIL



- *"Fuels meeting the new limit may be blended from a wider range of blending components than currently utilized today"*
- *"It is anticipated that issues of incompatibility could become more prevalent with max. 0.50%-sulphur content fuels."*

CHALLENGES WITH RESIDUAL VLSFO

STABILITY AND INCOMPATIBILITY OF RESIDUAL VLSFO

- Stability – asphaltenes held in suspension
- Supplier must provide stable fuel
- Incompatibility – two or more components cause "asphaltene precipitation"
- Incompatibility can occur in blending and co-mingling at any point in supply chain and on board
- Result - sludge or worse:

RISK ON THE HORIZON – QUALITY DISPUTES

BUNKER QUALITY DISPUTES - MAPPING COVER

- Owners
  - FDD
    - Claims vs. bunker supplier
    - Claims vs. charterer
  - H&M – repair of damage to the engine
  - LOH – loss of hire (after 14 days)
  - P&I
    - Liabilities consequent on engine failure
    - Fines for “accidental discharge”

- Charterers
  - SCC – if DTH – repair + hire
  - SCC – if could damage engine – removal and disposal (but not the cost of the bunkers)
  - SCC – indemnity for P&I liability due to breach of charter party (including fines for accidental discharge)
  - FDD – quality issues that do not threaten damage to hull – example sulphur content too high.
  - No CBI – property cover and does not apply to bunker quality

GARD'S EXPERIENCE

SCC CLAIMS 2000-2018

- 2 of top 10 largest claims - incompatibility of heavy fuel oil blends carried as cargo
- Number 7– removal and demurrage
- Number 9 – removal and hire
- Cover - cargo owner's legal liability DTH and hire or demurrage while the vessel is out of service


gard
WWW.GARD.NO