

What they are and their impact on diving activities



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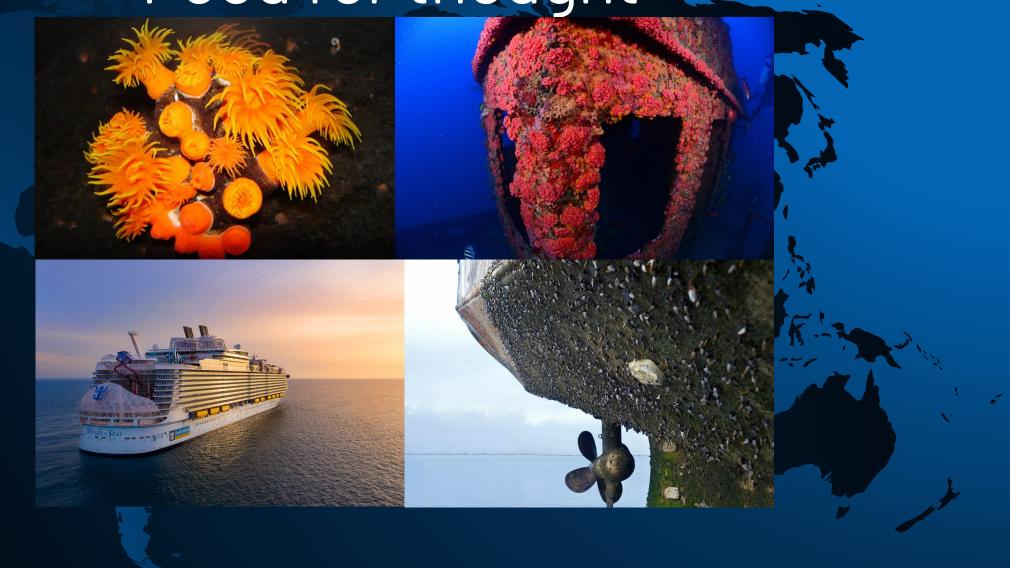








Food for thought ____



Biofouling Security - A brief history

IMO set up committee to look into the transfer of IMS

2011

First set of biofouling guidelines issued by IMO

Australia issues new regulations

New Zealand is in midst of reviewing and updating existing regulations

Australian Regulations – a deeper look

- New regulations from June 2022 from DAWE/DAFF
- Reporting through the <u>Maritime Arrivals Reporting System</u> (MARS).
- Steps required:
 - 1) Implementation of an effective biofouling management plan; or
 - 2) Cleaning of all biofouling within 30 days prior to arriving in Australian territory; or
 - 3) Implementation of an alternative biofouling management method pre-approved by the DAWE
- Non-compliance consequences

New Zealand Regulations - a deeper look

- 2 categories of vessels: Short-term vs Long-term stays
- Steps required:
 - 1) Undertaking continual hull maintenance using best practices or
 - 2) Cleaning the hull and niche areas within 30 days before arrival in New Zealand or
 - 3) Booking an appointment for the vessel to be hauled out and cleaned by an MPI-approved treatment supplier within 24 hours of arrival
- Non-compliance consequences

Compare the two.. '



Steps required for Compliance	Australian DAFF	New Zealand MPI
Reporting	Through <u>Maritime Arrivals</u> <u>Reporting (MARS)</u>	Evidence submitted to MPI
Effective biofouling management plan to be in place	Yes	Yes
Cleaning of all biofouling within 30 days prior to arriving in respective territory	Yes	Yes
Non Compliance Matters	A vessel operator will be subject to further questions and assessment of the biosecurity risk associated with biofouling on the vessel	 Require a hull inspection on arrival to New Zealand Restrict your New Zealand itinerary Restrict entry of your vessel to New Zealand to clean vessel within 24 hours by an approved provider in New Zealand.

Hull Cleaning vs Aus/NZ IMS cleaning

A normal hull cleaning covers a vessel's:

- Verticals including seachest gratings
- Flat bottom
- Propeller
- Rudder

An Australian / New Zealand IMS cleaning covers the above plus:

- Niche areas (<u>seachest internals</u>, overboard internals, rudder horn, rope guard internals, draft marks, docking marks, thruster tunnels, transducers etc)



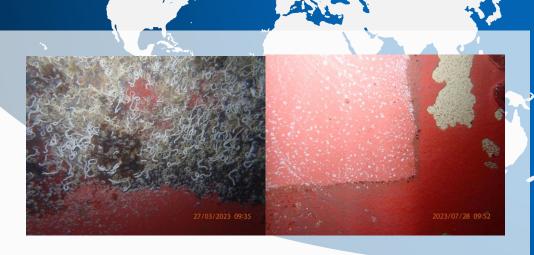
Reference for Locations – niches



Shipside o/b valves before and after cleaning



Shipside draft marks before and after cleaning

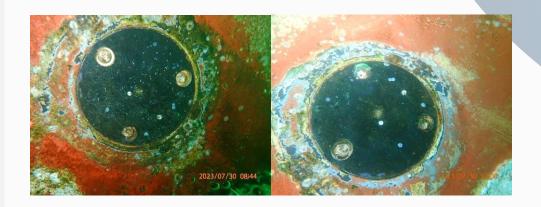


Docking marks of vessel before and after cleaning



Ship rudder horn areas before and after cleaning

Reference for Locations – niches



Transducers before and after cleaning



Ship ICCP anodes before and after cleaning



Rope Guard inspection window before and after cleaning



Ship bow thrusters before and after cleaning

Focus: Niche area - Seachest internals



- A few options to explore: heat treatment, chemical cleaning, manual cleaning
- Manual cleaning with divers being in focus
- Steps involved:
 - 1) Pre project prep: Drawings of seachest, internal openings, MGPS pipes, anodes
 - 2) Lock out Tag out (LOTO) to be done
 - 3) Opening gratings
 - 4) Diver entry
 - 5) Manual cleaning or HP water jetting
 - 6) Photo taking
 - 7) Re-securing of gratings

Reference for LOTO





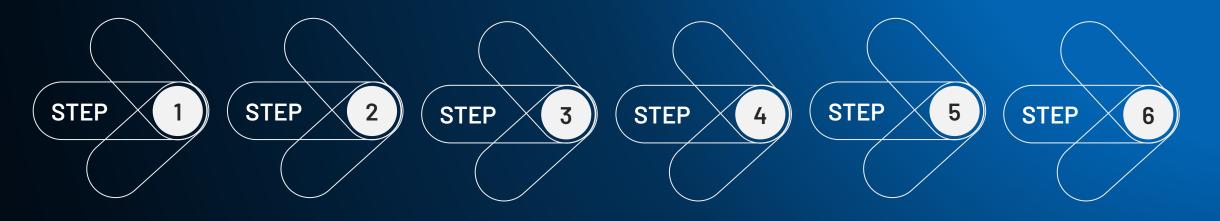






Cleaning of seachest step by step





Inspection and cleaning of seachest grating externals

Removal of bolts and opening of seachest gratings Pre cleaning inspection of seachest internals

Cleaning of seachest internals via high pressure water jetting Post cleaning inspection and photo taking of seachest internals

Closing of gratings

Seachest internal photos after cleaning



SC Internal side walls



SC MGPS pipe opening



SC intake orifice



SC Internal side walls



SC Internal anodes



SC Internal piping



SC grating hinges



SC gratings with nuts



Recap...

The history of biofouling security

Australian vs NZ biofouling regulations

The similarities and the differences

Differences between hull cleaning vs an Aus/NZ cleaning

Steps to perform for a Aus/NZ cleaning project

- LOTO
- 6 steps to carrying out the cleaning of seachest internals



Thank you!



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