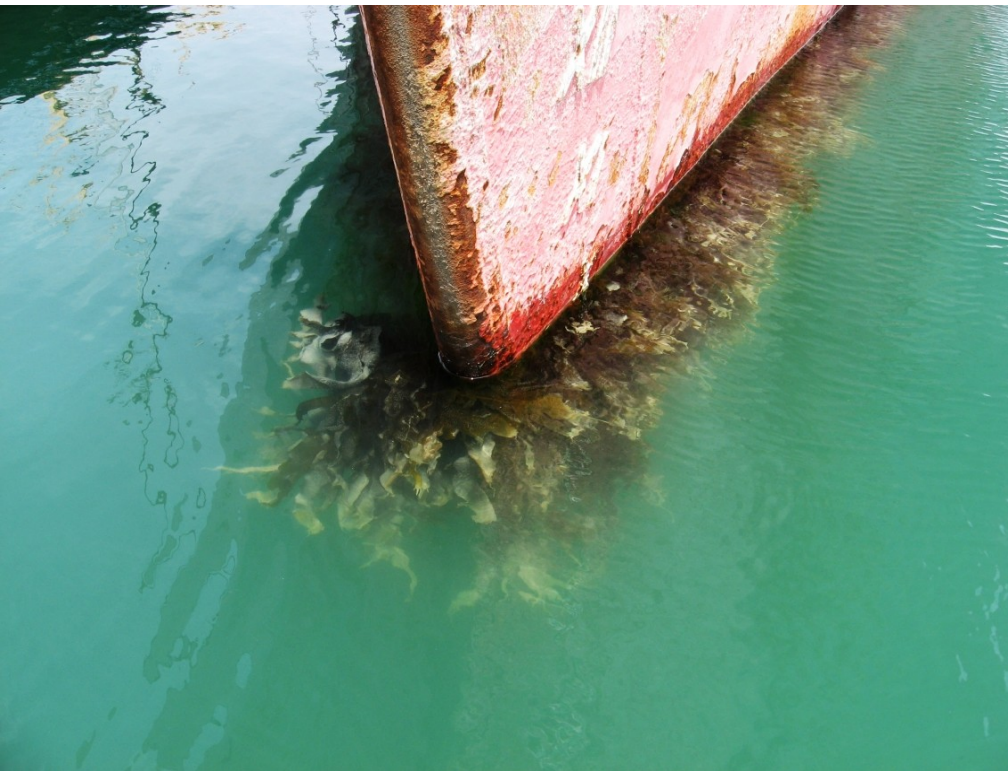




Biofouling Management in Brazil





Brazilian Maritime Authority (BMA): Role and Responsibilities



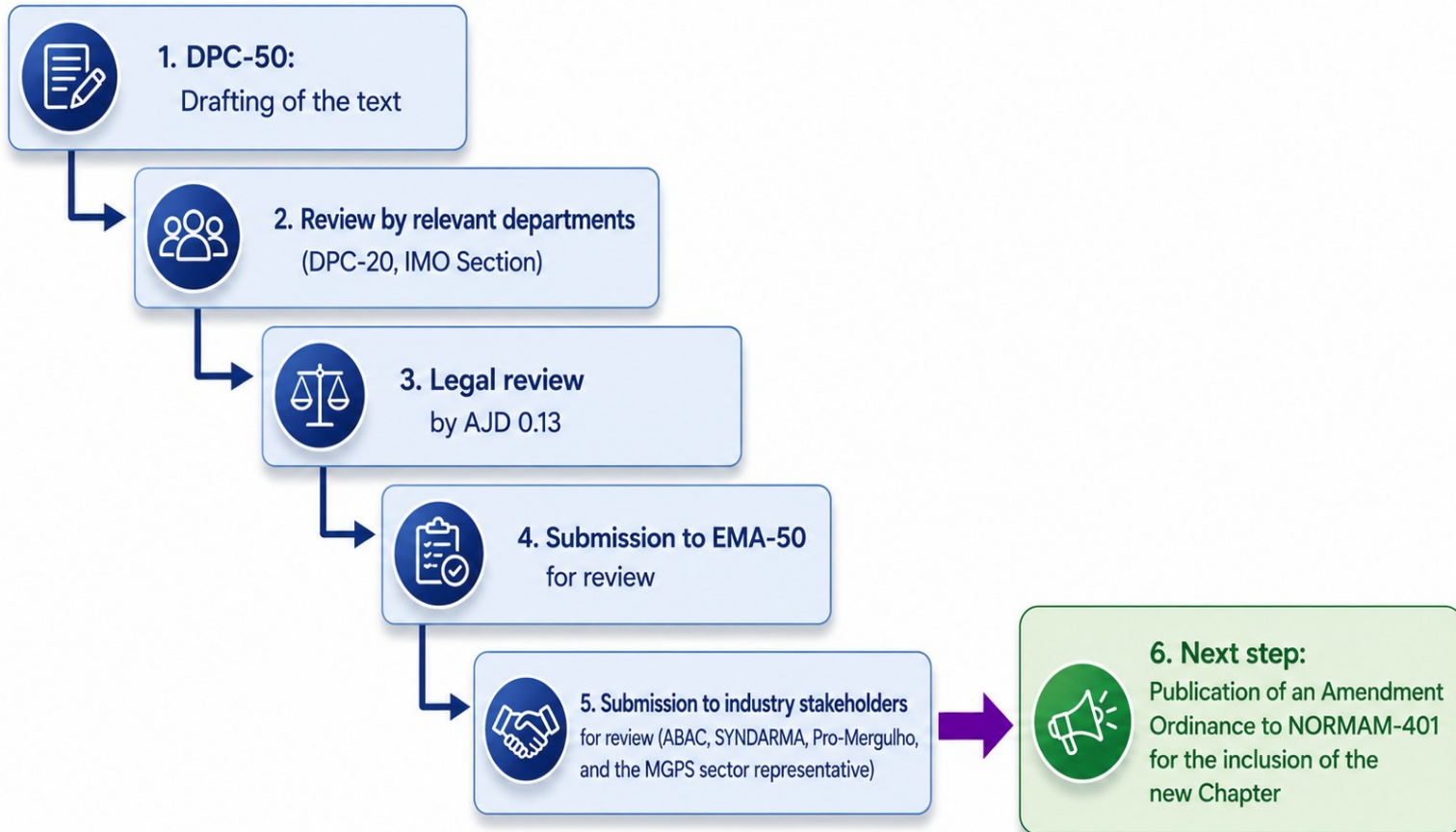
- The Brazilian Navy acts as the Brazilian Maritime Authority (BMA).
- The BMA is responsible for:
 - Safety of navigation
 - Protection of human life at sea
 - Prevention of water pollution from ships and platforms

Main Functions

- **Inspection & Enforcement**
 - Ship inspections
 - Vessel registration
 - Certification of seafarers and operators
- **Regulation**
 - Development of maritime regulations (NORMAM)
 - Standards for navigation, ship construction, and certification
- **Search and Rescue (SAR)**
 - Coordination of maritime search and rescue operations
- **Maritime Education**
 - Training of seafarers and Merchant Marine personnel
- **Environmental Protection**
 - Prevention and control of marine pollution caused by vessels and platforms



Development of Chapter 4





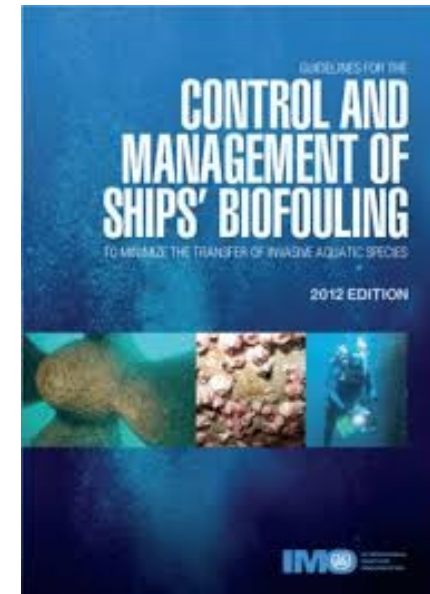
Regulatory Basis



- Based on IMO Guidelines and Guidance
- Aligned with international practices (Australia, New Zealand, California)
- Adapted to Brazilian operational and environmental context

NORMAM-401 englobes 4 chapters:

- 1°. Oil & oil derivatives pollution
- 2°. Ballast Water Management
- 3°. Harmful antifouling systems
- 4°. **Biofouling Management**





Scope of Regulation

- Applies to vessels >24m LOA in Brazilian Jurisdictional Waters (AJB)
- Excludes: continuous passage vessels, state vessels, small craft
- Offshore platforms and support vessels under specific regime

EXCEPTIONAL SITUATIONS

Safeguarding human life at sea and/or vessel safety (Force Majeure)

EXEMPTION Certificate (extension of validity of inspection or cleaning report, unforeseen circumstances and IWC without capture)



General Requirements



- Documents:
 - Biofouling Management Plan (BFMP)
 - Biofouling Record Book (BFRB)
 - Cleaning / Inspection Reports (PsP)
- Clean hull and niche area prior to entering AJB
- Inspection valid for 12 months
(Exemption - CISEN)

ANEXO J
ESCALA DE AVALIAÇÃO DA INCRUSTAÇÃO E PRÁTICAS DE LIMPEZA RECOMENDADAS

Referência: Resolução MEPC.378(80).

Ilustração	Nível de Incrustação	Descrição	Cobertura	Ação
	0. Sem bioincrustação	Superfícies totalmente limpas. Sem bioincrustação visível.	-	-
	1. Microincrustação	Áreas submersas parcial ou totalmente cobertas por microincrustações. Superfícies metálicas e pintadas podem ser visíveis sob a incrustação.	-	Limpeza proativa do casco, áreas nicho e outras submersas.
	2. Macroincrustação leve	Presença de microincrustações e ocorrências múltiplas de macroincrustações. As espécies incrustantes não são removidas facilmente à mão.	1-15% da superfície	Limpeza reativa com captura.
	3. Macroincrustação moderada	Presença de microincrustações e ocorrências múltiplas de macroincrustações.	16-40% da superfície	Recomenda-se diminuir o intervalo até a próxima inspeção. Caso o AFS esteja deteriorado, recomenda-se docagem a seco com manutenção/reaplicação do AFS.
	4. Macroincrustação pesada	Grandes áreas cobertas por macroincrustações ou áreas completamente cobertas por macroincrustações.	41-100% da superfície	



SPECIAL SITUATION



Transit Between Biogeographic Regions

- Conduct hull and niche area inspection/cleaning at the last port prior to the direct voyage to the BJW / distinct biogeographic region.
- The inspection report shall remain valid for re-entry into BJW and for transit between distinct biogeographic regions for a period of one year from the inspection date, and shall lose its validity if the vessel is classified as stationary.
- The inspection report shall be uploaded to the Porto sem Papel (PsP) system prior to entry into SBJ areas / transit between distinct biogeographic regions, where it shall remain available to the Maritime Authority clearance section throughout its validity period.





In-Water Cleaning (IWC)



- Reactive cleaning (macrofouling): capture required
- Prior authorization from Maritime Authority
- Other authorizations might be needed
- Proactive cleaning (microfouling): notification required





IWC Documentation



- Annex K (request)
- AFS Certificate/Declaration
- BFMP and BFRB
- Port call history
- Recent inspection/cleaning reports
- Biofouling removal plan





Many thanks!

¡Gracias!

Obrigada!

Capt Cecilia de Castro, PhD
Superintendence of Environment
Directorate of Ports and Coasts

