

**Sayı** : 38591462-400-2021-305

22.01.2021

Konu : Gemi Teknesi Sualtı Temizliği Standartları ve Uygulama Projesi Webinarı

Sirküler No: 88

Sayın Üyemiz,

Uluslararası Deniz Ticaret Odası (ICS) tarafından gönderilen 15 Ocak 2021 tarihli ve ENV(21)02 sayılı ekte sunulan yazıda,

"Gemi Teknesi Sualtı Temizliği Standartları"nın geliştirilmesine yönelik ICS ile Baltık ve Uluslararası Denizcilik Konseyi'nin (BIMCO) çalışmalar yürüttüğü, standartların tekne altı temizliği firmaları ve klas kuruluşları tarafından uygulanılmaya hazır olduğu ifade edilmektedir.

Bahse konu standartların uygulanmasına yönelik proje geliştirildiği, ekte detayları sunulan projeye katkı sağlayabilecek firmaların belirlenmesinin hedeflendiği bildirilmekte olup, Gemi Teknesi Sualtı Temizliği Standartları ve standartlar çerçevesinde hazırlanan Uygulama Projesi hakkında BIMCO tarafından bilgilendirme webinarı gerçekleştirileceği belirtilmektedir.

Sualtı temizliği standartları ile projeye ilişkin sorulara yanıt verilecek 2 Şubat 2021, 12.00-13.00 saatleri arasında gerçekleştirilecek söz konusu webinara katılım sağlamak isteyen Üyelerimizin, İMEAK DTO Üyesi olarak katılım sağlanacağı belirtilerek en geç 25 Ocak 2021 tarihine kadar ICS Çevre ve Ticaret Müdürü Sayın John STAWPERT'e (john.stawpert@ics-shipping.org) kayıt talebinde bulunmaları gerekmektedir.

Bilgilerinize arz/rica ederim.

Saygılarımla,

İsmet SALİHOĞLU
Genel Sekreter**Ek:**

ICS YAZISI ve Uygulama Projesi Planı (25 sayfa)

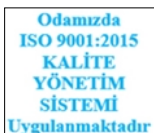
Dağıtım:

Gereği:

- Tüm Üyeler (WEB sayfası ve e-posta ile)
- İMEAK DTO Şube ve Temsilcilikleri
- Türk Armatörler Birliği
- S.S. Gemi Armatörleri Motorlu Taşıyıcılar Kooperatifi
- GİSBİR (Türkiye Gemi İnşa Sanayicileri Birliği Derneği)
- Gemi, Yat ve Hizmetleri İhracatçıları Birliği

Bilgi:

- Yönetim Kurulu Başkan ve Üyeleri
- İMEAK DTO Çevre Komisyonu
- İMEAK DTO Meslek Komite Başkanları

Bu belge, 5070 sayılı Elektronik İmza Kanuna göre Güvenli Elektronik İmza ile İmzalanmıştır.

Evrakı Doğrulamak İçin : <https://ebys.denizticaretodasi.org.tr/enVision/Dogrula/L5KK1Y>
Bilgi için: Serkan İNAL **Telefon:** 02122520130/157 **E-Posta:** serkan.inal@denizticaretodasi.org.tr
 Meclis-i Mebusan Caddesi No:22 34427 Fındıklı-Beyoğlu-İSTANBUL/TÜRKİYE
Tel : +90 (212) 252 01 30 (Pbx) **Faks:** +90 (212) 293 79 35
Web: www.denizticaretodasi.org.tr **E-mail:** iletisim@denizticaretodasi.org.tr **KEP:** imeakdto@hs01.kep.tr





- VDAD (Vapur Donatanları ve Acenteleri Derneği)
- KOSDER (Koster Armatörleri ve İşletmecileri Derneği)
- Gemi Geri Dönüşüm Sanayicileri Derneği
- ROFED (Kabotaj Hattı Ro-Ro ve Feribot İşletmecileri Derneği)
- Yalova Altınova Tersane Girişimcileri San.ve Tic.A.Ş.
- İMEAK DTO 3,5,7,8,35 ve 44 No'lu Meslek Grubu Üyeleri

Bu belge, 5070 sayılı Elektronik İmza Kanuna göre Güvenli Elektronik İmza ile İmzalanmıştır.



Evrakı Doğrulamak İçin : <https://ebys.denizticaretodasi.org.tr/enVision/Dogrula/L5KK1Y>
Bilgi için: Serkan İNAL Telefon: 02122520130/157 E-Posta: serkan.inal@denizticaretodasi.org.tr
Meclis-i Mebusan Caddesi No:22 34427 Fındıklı-Beyoğlu-İSTANBUL/TÜRKİYE
Tel : +90 (212) 252 01 30 (Pbx) Faks: +90 (212) 293 79 35
Web: www.denizticaretodasi.org.tr E-mail: iletisim@denizticaretodasi.org.tr KEP: imeakdto@hs01.kep.tr





International
Chamber of Shipping

Shaping the Future of Shipping

38 St Mary Axe London EC3A 8BH

Tel +44 20 7090 1460

Fax +44 20 7090 1484

info@ics-shipping.org | ics-shipping.org

This Circular and its attachments (if any) are confidential to the intended recipient and may be privileged. If you are not the intended recipient, you should contact ICS and must not make any use of it.

15 January 2021

ENV(21)02

TO: ENVIRONMENT SUB-COMMITTEE

UNDERWATER HULL CLEANING STANDARDS, IMPLEMENTATION PROJECT AND WEBINAR.

Action Required: Members are invited to note the progress made in developing the Industry standards on underwater hull cleaning and the start of the associated implementation project. Members are requested to advise the undersigned of shipping companies that wish to participate in the implementation project. Furthermore, members are advised of a webinar on the standards and project, to be held on 2 February at 10.00-11.00 CET, and are requested to advise the undersigned if they wish to attend.

Members will be aware of the work conducted by ICS and BIMCO on the development of an underwater hull cleaning standard and supporting approval standard. The Secretary is pleased to advise that significant progress has been made, and the standards are now ready for implementation by hull cleaners and class societies. BIMCO will lead the implementation project, and the associated project plan is provided at **Annex A**.

Fundamental to the success of the implementation project and the standards themselves is the availability of ships to be cleaned as part of the project. Members are therefore requested to advise their members about the implementation project and the need for ships to contribute to it, with a view to increasing the pool of vessels available and increasing the likelihood of a positive result from the project.

Furthermore, members are advised that BIMCO will host a webinar on the standards on February 2, at from 10.00-11.00 CET. The webinar will provide background on the standards and the implementation project, and afford the opportunity to raise any questions with respect to the development of the material, progress made to date, and plans for future work through IMO on the issue of Underwater Hull Cleaning. Members who wish to attend the webinar are requested to advise the undersigned by no later than 25 January.

Any questions with respect to the above should be provided to the undersigned (john.stawpert@ics-shipping.org).

John Stawpert
Manager (Environment and Trade)

Contents

1. About this document	3
2. Definitions	4
3. Members of the working group	5
4. Purpose and goals	7
5. Deliverables	8
6. Success criteria	10
7. Project management	11
8. Documentation	12
9. Work plan	13
9.1 Phases of work	13
9.2 Milestones	14
9.3 Resources	19
10. Roles and requirements	20
11. Risk register	21
12. Scheduling and dependencies	22
13. Intellectual property rights	23

1. About this document

This document provides the project plan for the small scale implementation of the Industry standard on in-water cleaning (Industry Standard) with capture and the corresponding Approval procedure for in-water cleaning companies (Approval Procedure).

Approval of cleaning companies addresses the following:

1. The testing, auditing and approval by an independent Approval body of the cleaning company's system and processes in accordance with the Approval Procedure
2. After approval, the implementation of periodic internal audits of the cleaning company's quality management systems as well as external audits by the Approval body at regular intervals
3. Compliance with the requirements in the Industry Standard for planning, conducting, and reporting on the cleaning process by ships, AFS manufacturers and cleaning companies
4. The use of testing results processed by an independent Testing organization when applying to a port and any other relevant authorities for local permission to operate within their jurisdictions.

The purpose of this document is to guide the planning, control and execution process that leads to certification of cleaning companies. The document will be maintained throughout the duration of the project and its contents will evolve accordingly.

2. Definitions

In-water cleaning means the physical removal of biofouling from a ship's hull, propeller and niche areas, which are submerged in water, and the with the capture of the materials that are removed during the process.

Niche areas are the areas on a ship that may be more susceptible to biofouling due to different hydrodynamic forces, coating system wear or damage, or from being inadequately painted, e.g., sea chests, bow thrusters, propellers and propeller shafts, rope guards, inlet gratings, dry-dock support strips, rudder pintle areas etc.

Industry Standard refers to version 1 of Industry Standard on in-water cleaning with capture (2021).

Approval Procedure refers to version 1 of the Approval Procedure for in-water cleaning companies (2021).

3. Members of the working group

[Placeholder to be updated – members please check]

The members of the working group are:

AkzoNobel is a leading global paints and coatings company. Calling on centuries of expertise, we supply industries and consumers worldwide with innovative products and sustainable technologies designed to meet the growing demands of our fast-changing planet. Headquartered in Amsterdam, the Netherlands, we have approximately 46,000 people in around 80 countries, while our portfolio includes well-known brands such as Dulux, Sikkens, International and Interpon. Consistently ranked as one of the leaders in the area of sustainability, we are committed to making life more liveable and our cities more human.

BIMCO has 1900 member companies across 120 countries and is a direct-membership organisation for shipowners, charterers, shipbrokers and agents. In total, around 60% of the world's merchant fleet is a BIMCO member, measured by tonnage. The organisation is based in Copenhagen, Denmark, with offices in Athens, London, Singapore and Shanghai. BIMCO mission is to be at the forefront of global developments in shipping, providing expert knowledge and practical advice to safeguard and add value to its members' businesses.

CMASHIPS was created on January 1st, 2008 as a wholly subsidiary of CMA CGM (the world's 3rd largest container shipping company) with the objective of managing all fleet related operations. CMASHIPS manages 37% of CMA CGM operated vessels (out of 504): 193 vessels.

CMASHIPS' missions are the following:

- to manage the ships that are on duty, which involves technical management, of the onboard staff and the Dry Dock (ship maintenance)
- to supervise the construction of new ships
- to bring technical expertise to CMA CGM in order to improve the energy efficiency and the environmental responsibilities of the ships, and to optimize it.

Sitting at the forefront of innovation, the CMA CGM ships participate in the fight against climate change and the protection of the oceans.

C-Leanship is an underwater hull cleaning provider using state of the art ROV and Waterjet Technology. With focus on developing and operating own technology, C-Leanship's ambition is to become the global leader within underwater cleaning services

DG-Diving Group Ltd was founded in 1982 as a commercial diving company and has a long-term experience in dive services. The in-water hull cleaning of ships has been a part of the company's business area since the beginning. The company has developed and patented the modern equipment for the in-water hull cleaning, responding to the demand for future needs.

Fleet Cleaner developed an innovative cleaning robot that removes all fouling from any type of seagoing ship. The entire cleaning operation is done within a ship's normal port stay, during loading and unloading. Our robot attaches to ship's hull with magnets and removes the fouling with high pressure

water jets, reducing fuel consumption with 5-10% while collecting all removed fouling. Fleet Cleaner offers its cleaning service 24/7 in all Dutch ports, without downtime and in a safe and environmental-friendly way.

Hapag-Lloyd has 222 modern ships, 9.8 million TEU (Twenty-foot Equivalent Unit) transported per year, around 12,000 motivated employees in 394 offices in 127 countries. Hapag-Lloyd is a leading global liner shipping company with a fleet offering a total capacity of 1.6 Million TEU, as well as a container stock of more than 2.5 million TEU including one of the world's largest and most modern reefer container fleets. A total of 118 liner services worldwide ensures fast and reliable connections between more than 600 ports on all the continents.

HullWiper Ltd aims to actively contribute to the preservation of our oceans whilst meeting the business needs of the global shipping community, through advanced technology designed to protect the eco-systems by reducing pollution and eliminating cross-pollination of invasive species. This is achieved by cleaning ships' hulls safely, efficiently and with minimal impact on the marine environment, wherever vessels go. The use of innovative ROV technology replaces traditional diver and brush methodology to mitigate the risk to the eco-system, hull coatings and human life. The eco-friendly HullWiper system helps to reduce carbon emissions, boost fuel efficiency and extend the time periods between cleanings.

The International Chamber of Shipping (ICS) is the principal international trade association for the shipping industry, representing shipowners and operators in all sectors and trades. ICS membership comprises national shipowners' associations in Asia, Europe and the Americas, whose member shipping companies operate over 80% of the world's merchant tonnage. Established in 1921, ICS is concerned with all technical, legal, employment affairs and policy issues that may affect international shipping. ICS represents shipowners with the various intergovernmental regulatory bodies that impact on shipping, including the International Maritime Organization. ICS also develops best practices and guidance, including a wide range of publications and free resources that are used by ship operators globally.

Portland Harbour Authority owns and operates a commercial port, harbour and maritime business park on the south coast of England just 22 miles from the English Channel shipping lanes. Alongside depths up to 11.6m, lengths to 350m, deep, clear water with visibility up to 10m and offering port and vessel related services including in-water cleaning, inspections, repairs, maintenance, bunkering, and cargo handling and storage.

PPG is a global supplier of paints, coatings, optical products, and specialty materials. Through leadership in innovation, sustainability and colour, PPG helps customers in industrial, transportation, consumer products, and construction markets and aftermarkets to enhance more surfaces in more ways than does any other company.

4. Purpose and goals

A cleaning company can be approved to clean different areas on the ship. The Industry Standard and the Approval Procedure divide niche areas into different categories according to the different cleaning systems required to clean and capture materials:

- a. The hull itself and niche areas present on the vertical side or the bottom of the ship that can be readily cleaned without using special equipment. On such areas, the equipment used is designed to clean large flat areas fast, which includes remotely operated vehicles (ROV's) and divers.
- b. Propellers¹. The Industry Standard addresses cleaning of the propeller with capture.
- c. Niche areas that for example are built into the hull and/or have bends or corners have to be cleaned with special equipment and therefore are non-comparable to (a) and (b).

The following minimum requirements for testing and approval have been established in the Industry Standard and Approval Procedure:

1. the in-water cleaning process removes at least 90% of macrofouling (ie, individuals or colonies visible to the human eye)
2. the separation and/or treatment of captured materials during in-water cleaning achieves both: (1) removes at least 90% (by mass) of material from seawater influent and (2) at least 95% of particulate material in effluent water is < 10 µm in equivalent spherical diameter (ESD)
3. local water quality parameters of Total Suspended Solids (TSS) are not elevated above ambient levels during the same time period
4. local water quality parameters of dissolved and particulate biocides found in anti-fouling coatings are not elevated significantly above ambient levels during the same time period.

A ship should have in place procedures necessary for the management of biofouling and preparation of in-water cleaning activities in order to give the best possible information to the cleaning company. The Industry Standard describes the planning process prior to the execution of the in-water cleaning.

At the start of this project, no cleaning companies have been approved in accordance with the Approval Procedure. Further, it must be expected that shipowners will only partly fulfil IMO guidelines on biofouling management as well as the Industry Standard.

The aim of this project is to change this situation and encourage cleaning companies to be approved and shipowners to manage in-water cleaning in the best possible way. Lessons learned during the implementation of the Industry Standard and Approval Procedure will be used to improve Version 1 of the documents.

¹ Propellor polishing without capture of materials are not covered by the Industry Standard

5. Deliverables

The project has four deliverables and thereby four focus areas, which are:

1. Notices of time and place for testing
 - a. Enlist shipowners to provide ships that can participate in the cleaning and testing
 - b. Establish candidates among cleaning companies, testing organisations and classification societies (acting as Approval body)
 - c. Coordinate the planning for the testing of in-water cleaning between the port and other relevant authorities, Approval body, cleaning company, Testing organization and paint manufacturer(s)
 - d. if possible, complete the testing of the cleaning with capture of niche areas that require special equipment and/or of fouled propellers
2. Approved cleaning companies
 - a. Carry out testing during an in-water cleaning with participation of Approval body, ship, port, paint manufacturer and cleaning company using the Industry Standard and the Approval Procedure as base documents
 - b. Document all lessons learned:
 - what worked and what did not in connection with the testing
 - possible improvements and potential problems etc
3. Communication in accordance with plan
 - a. each stakeholder to provide feedback to the project working group after each cleaning
 - b. communicate with relevant organisations and entities to pave the way for acceptance
 - c. inform the outside world about the results
4. Revised Industry Standard and Approval Procedure
 - a. Based on the abovementioned deliverables, amend version 1 of the documents
 - b. Release version two of the Industry Standard and the Approval Procedure

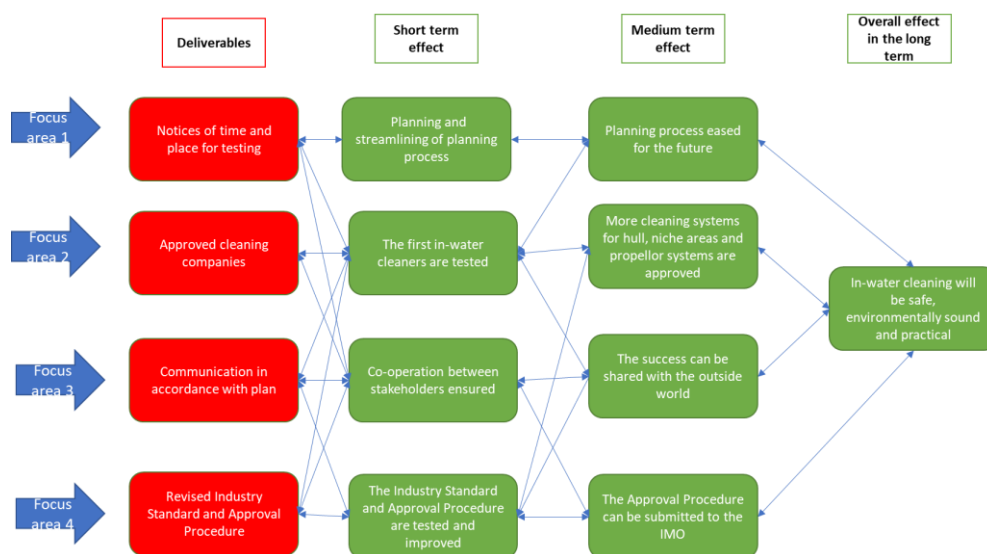


Figure 1: A schematic overview of the project

6. Success criteria

1. In 2021, at least two hull cleaning companies to be approved and certified
2. In 2021, the biofouling management concept to be implemented on at least six ships
3. In 2022, a revised version of the Approval Procedure to be submitted to the IMO.
4. End of 2022, one or more niche area cleaning company(ies) to be approved
5. In 2022, ships with biofouling management based on the Industry Standard will not be rerouted or otherwise penalized due to biofouling observed by third parties
6. Before end of 2023, at least two new ports to issue permits for approved in-water water cleaning companies
7. In 2024, IACS to adopt unified recommendations on how to approve cleaning companies
8. Before end of 2025, approved cleaning companies to be operating on all continents.

7. Project management

The project will be managed by BIMCO, represented by Aron Frank Sørensen (the project Manager). The Manager will be responsible for leading the project, managing the project plan, arranging project-related meetings, corresponding about recommended improvements and handling all other project matters including risk management.

The work described in the work plan below will be carried out by working group members, who are responsible for achieving the agreed milestones in this project plan.

8. Documentation

The purpose of project documentation is to ensure traceability across the project with regard to what has been done, who has done it, and the date of completion. Documentation lays the foundation for quality, traceability, and history, both for the individual document and for the overall project documentation.

The key documents associated with this project are as follows:

- The work plan (containing the Work Plan, and Risk Register)
- Intellectual Property Rights (Chapter 13)
- Reports of project-related meetings (to be produced as the project progresses)
- The Project Plan (a living document)

Working papers will use a template provided by the Manager and a web site will be used for updating the various documentation during the process.

9. Work plan

9.1 Phases of work

The project will consist of four separate phases:

➤ **Phase 1 – Implement standards and procedures, and prepare cleanings (1 January 2021 – 1 June 2021)**

During this phase, the logistical part will have been planned to pave the way for the testing ie finding a ship with visible fouling, a cleaning company that is ready to be tested, and an Approval body, which in co-operation with a Testing organisation, will be able to conduct the test at the right place at the agreed time.

The initial terms for carrying out the test with interested cleaning companies should be established including details of possible ports, ships sizes, expected cleaning time etc. Phase one may take place several times in parallel by allowing for example different cleaning systems to be tested in different ports.

The purpose, goals, deliveries and success criteria will be prepared by correspondence and discussed at on-line meetings as well at face-to-face meetings as and when possible. All stakeholders are expected to take ownership and contribute actively whether by correspondence, or online discussions/brainstorming.

The selected Approval bodies should prepare the process with the designated cleaning companies to identify what services should be tested and outline all the necessary preparations.

An alignment of expectations with the shipowner has to be undertaken to ensure that all the necessary steps have been taken to ensure success such as the implementation of biofouling management in accordance with the Industry Standard and their respective management systems.

If so required, negotiations to be undertaken with a port and any other relevant authorities to obtain necessary permit(s) for in-water cleaning.

Phase one will end once the planning process for an in-water cleaning in accordance with the requirements in the Industry Standard has been completed by all the ships, cleaning companies and other stakeholders.

➤ **Phase 2 –Testing (1 June 2021 – 1 August 2021)**

The aim of phase two is to carry out the testing in accordance with the requirements in the Approval Procedure. This work will be divided between the Approval body, the cleaning company and the independent Testing organisation. As the Approval body and the Testing

organisations are independent, this project will only describe the role of the shipowner and the cleaning company.

The Approval body and the Testing organization will plan and lead the test of the cleaning company in accordance with the Approval Procedure and internal procedures. A start up meeting before the commencement of the first test should be held between all stakeholders to go through safety procedures, plan the execution and identify any specific actions needed etc.

Members of the working group may be invited to be part of a cleaning event to observe and learn from the process itself. The lessons learned from each testing event will be communicated to the working group by the shipowner, cleaning company, Testing organization and the Approval body. The Testing organisation will be invited to comment on the Approval Procedure.

➤ **Phase 3 – Communication (1 January 2021 – 1 December 2021)**

During this phase, communication between stakeholders will be carried out in accordance with the Industry Standard as part of the planning prior to and reporting after each cleaning/testing event.

As this is a totally new initiative, a co-ordinated effort will be made to keep the press, international organisations and industry stakeholders informed during the entire process.

Approved cleaning companies will be added to a list, so shipowners will know who to contact when in need of a cleaning.

➤ **Phase 4 – Revision of Industry Standard and Approval Procedure (Depending on previous phases – 1 January 2022)**

In phase four, the Manager will collate and analyse all the feedback received. Based on the experience thus gained, the working group members will participate in a revision of the Industry Standard and Approval Procedure.

9.2 Milestones

A milestone is a partial deliverable, a result or a condition that is determined in time – it is not an activity. Examples are a report, a decision, a finalized analysis, an approval, a test result, a new design, an acceptance by users etc.

There are several milestones associated with the project as identified below. In general, the milestones are ambitious and many of them have to be implemented prior to the initiation of the next phase.

Milestones for phase 1 Implement standards and procedures, and prepare cleanings	Start	End
Shipowner's deliverables	1 January 2021	1 June 2021
1. Paint manufacturer has been contacted for advice and guidance on in-water cleaning	1 January	1 March
2. Participating shipowners, and cleaning companies have agreed on terms and conditions	1 February	1 April
3. Based on the Industry Standard, procedures have been identified and agreed upon by all stakeholders	1 February	31 March
4. Biofouling management has been implemented on board in accordance with the Industry Standard and IMO's biofouling guidelines	1 April	1 May
5. In-water inspection have been carried out (can be done in connection with cleaning)	15 May	1 June
6. Ready for testing has been announced with notification of place and date	In accordance with 1.2 and 2.3	1 June
Cleaning companies' deliverables	1 January	1 June
7. Participating shipowners, and cleaning companies have agreed on terms and conditions	1 January	1 March
8. Agreement on terms and conditions has been finalized between cleaning company and Approval body	1 January	1 March
9. Documentation has been assessed by Approval body and external audit has been finalised	1 March	As agreed with cleaning
10. Paint manufacturer and Testing organisation have been consulted	1 March	1 April
11. Port and other relevant authorities have been consulted and permit given, if so required	1 March	1 May
12. Ready for testing has been announced	In accordance with 1.2 and 2.3	1 June

Approval body's deliverables	1 January 2021	1 June 2021
13. Participating cleaning companies and Approval body have agreed on terms and conditions	1 January	1 March
14. Approval body have set up requirements for external audits and approvals	1 March	1 May
15. Independent Testing organisation have been hired and consulted with the Approval Procedure	1 May	1 June
16. Experimental design has been planned with testing organisation	1 May	1 June
17. Documentation by cleaning company has been approved	1 March	1 June
18. Ready for testing has been announced	1 May	1 June
Paint manufacturer's deliverables		
19.	Placeholder to be added	

Milestones for phase 2 Testing	Start	Finish
Deliverables by the ship and the cleaning company	1 June	1 August
1. Meeting before testing has been held	After 1.1 and 1.2	15 July
2. Safety and environmental checklists have been prepared and agreed	15 July	1 August
3. Pre-assessment of the cleaning area has been carried out	15 July	1 August
Deliverables by the Approval body and the cleaning company		
4. Safety and environmental requirements have been prepared and checked in accordance with the Industry Standard	1 June	1 July
5. Operational procedures in accordance with the Industry Standard have been prepared and checked	1 June	1 July

6. Documentation of test conditions and operations have been prepared and assessed	1 July	1 August
Premeeting, deliverables by Approval body		
7. Invitations have been sent to working group observers	1 July	1 August
8. Planning meeting have been held before cleaning and testing starts	1 August	1 September
9. Arrangements during testing to be agreed in accordance with the Approval Procedure and internal procedures	1 August	1 September
The test, deliverables by the Approval body and Testing organization	1 August	1 September
10. Test has been carried out in accordance with the requirements in the Approval Procedure	1 August	1 September
11. Samples have been taken by Approval body to be sent to Testing organisation	1 August	1 September
12. Test results have been published and evaluated	1 August	1 September
Evaluation of the course of events, deliverables by Approval body and project Manager	1 September	15 September
13. Follow up meeting on test results has been held	1 September	15 September
14. Report has been sent to working group members	1 September	15 September
Paint manufacturers' deliverables		
15.	Placeholder to be added	

Milestones for phase 3 Communication		
Deliverables by ship and cleaning company	1 June	15 July
1. Pre-communication have been exchanged in accordance with the Industry Standard	1 June	15 July

2. Pre-preparations for the cleaning have been carried out in accordance with the Industry Standard	1 June	15 July
Media plan deliverables by project Manager	1 January	1 December
3. Brainstorming on communication handling has been carried out by the shipowner organizations	1 March	1 April
4. Communication plan has been finalized by the working group	1 April	1 May
5. First approval of press release	Pending approval	
6. List of approved cleaning companies has been published by [Placeholder to be decided]	1 March	1 June
Communication between industry organisations and project Manager	1 January	1 July
7. First meeting with OCIMF and RightShip has taken place	1 February	1 March
8. Communication with relevant shipping organisations has been initiated	1 March	1 May
9. Communication with IACS has taken place	1 September	1 December
Communication between the International Maritime Organization (IMO) and project Manager	1 August 2021	1 October 2021
10. Information paper about the work carried out by the working has been submitted	Pending feedback from testing and IMO deadlines	1 October

Milestones for phase 4 Revision of the Industry Standard and Approval Procedure		
Management of working group, project Manager	1 October	1 January 2022
1. Draft amendments have been prepared	1 October	15 October
2. Amendments have been discussed with working group and comments have been received by the reference group	15 October	30 November

3. Amended versions have been published	30 October	31 December
---	------------	-------------

9.3 Resources

The resources are to be handled internally by the individual stakeholders.

10. Roles and requirements

Participating Organisations [placeholder to be updated]

Name	Contact point	HQ	Role
BIMCO	Aron Sorensen	Copenhagen	Project Manager
BIMCO	Ashok Srinivasan	Copenhagen	Shipowner organisation representative
ICS	John Stawpert	London	Shipowner organisation representative
C-Leanship	Jonas Kaasing Rasmussen	Singapore	Hull cleaner
HullWiper	Simon Doran	Dubai	Hull cleaner
PPG Coatings	Brian Mountain Diarmuid O'Hara Conroy		Paint manufacturer
Hempel	Gareth Prowse	Copenhagen	Paint manufacturer
Akzo Nobel	Adam Bell	Gateshead	Paint manufacturer
Hapag-Lloyd	Nikhilesh Bhatia and Marcus Mueller	Hamburg	Shipowner
CMA Ships	Wei Song Tan	Singapore	Shipowner
Fleet Cleaner	Cornelis de Vet	Rotterdam	Hull cleaner
DG Diving Group	Mika Rouhola	Turku	Hull Cleaner
Minerva Shipping	Michael Servos	Athens	Shipowner
DNVGL			
Lloyds Register			
ABS			
Testing organisations?	Ports?		

11. Risk register

[Placeholder to be updated by after the first meeting of the working group] Risks identified during the planning of the project have been included in the Risk Management Log below, where they will be tracked throughout the project. Additional risks identified during the project will be added to and tracked in the log.

The number in the column entitled milestone should be read as follows: the first digit refers to the milestone and the second to digit refers to the deliverable. 1.3 for example refers to: "Based on the Industry Standard, procedures have been identified and agreed upon by all stakeholders."

The risks are divided into different categories determined how hard they are to mitigate:

- Resource based activity: Predictable and influenceable: If the resources are doubled the time can be halved. Normally not a risk. Example: programming, counting, registering.
- Process determined activity: Predictable but impossible to influence. Little uncertainty on time and resources as it is determined by the process. Example: wait for questionnaires, training of employees.
- Procedural activities: Unpredictable and hard to influence: It is the outcome that is hard to predict not the timeframe. Example: decisions, hearings, test activities, tests, approvals.
- Problem determined activities: These are activities where innovation is paramount, so timing and resources are uncertain. Such problems can be influenced by resources. Example: design, developments, create consensus among interested parties.

Only risks with a high probability and/or consequence have been mentioned in the following table.

Mile-stone	Activity risk	Probability	Consequence	Mitigation	Action by	Closed date
1.2	Problem determined activities	Medium	Prerogative for participation	Planning		
1.3	Process determined activity because of training so hard to influence	Small	Delay 1.5	Planning essential and shore side must be involved		
1.4	Procedural activity so hard to influence and predict	Medium	Delay phase 2	Select participating ships with care eg by starting with the inspection		
1.7	Problem determined activity caused be lack of time	High	If agreement cannot be reached this phase must	Commercial in nature so no solution		

			restart or cancel			
1.8	Procedural activity due to need for approval	Medium	May delay the process	Adaption of expectations beforehand to be prioritised		
1.10	Procedural activity due to need for approval	High if new port Low if port where activity already takes place	If permit not given a new port must be found	Alternative port should be taken into planning if possible		
1.11	Process determined activity because other activities needs to be finalized	Low	Delay the process	Alternative solutions can be used		
1.13	Resource based activity	Low	May delay testing date	Sufficient resources must be allocated		
2.3	Process determined activity	Medium	Delay the process	Concentrate on 2.1 and 2.2 and the resources here		
2.6	Problem determined activity	High	Stop the process	Co-operation and coordination between approval bodies		
2.7	Procedural activity	Medium	Delay the process	Early focus will provide more time for improvements		
2.15	Procedural activity	Low	Delay the process and event may have to be repeated	Just wait it out		

12. Scheduling and dependencies

The timeline and dependencies of the project will be agreed at the first meeting of the working group.

13. Intellectual property rights

For the purposes of the project “Implementing approved in-water cleaning with capture”, “Information” includes any form of document, or data, including text, graphs, diagrams, drawings, photographs or pictures in any format.

No member of the working group may share any information gained from their participation in the project “Implementing approved in-water cleaning with capture” with any third party, that is any person or association outside of the working group unless approved in writing by the project Manager.

This duty of confidentiality will apply notwithstanding withdrawal from the project “Implementing approved in-water cleaning with capture”.

Provision of information to the working group

It is important that when providing information that the source of the information is made clear to the participants of the working group and the project manager. If the source of the information is unknown, this must also be made clear.

Unless members of the working group have expressed written permission from an intellectual property rights holder, they are not able to use the Information.

Intellectual property rights in work created by the working group

The intellectual property rights to all work created by the working group will vest solely with the authors, namely, the members of the working group, as stated in this project plan. The supply of any Information does not grant you or your company any licence, interest or rights in respect of any intellectual property rights of the work produced by the project “Implementing approved in-water cleaning with capture”.

When finalized, any material produced during the work will be available free of charge to users and members of the working group. The working group members also agree that the outcome of the work can be submitted to the International Maritime Organization and other relevant international organizations for further use and development.