



VOLUNTARY GUIDANCE FOR RELEVANT AUTHORITIES ON IN-WATER CLEANING OF VESSELS



Have questions about this voluntary guidance?
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Transport Canada Transports Canada

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1. Definitions

For the purposes of this guidance the following definitions apply.

Anti-fouling system: a coating, paint, surface treatment, surface, or device that is used on a ship to control or prevent unwanted organisms from attaching.

Aquatic invasive species: a non-indigenous species which may pose threats to human, animal and plant life, economic and cultural activities, and the aquatic environment.

Biocide: a chemical that prevents aquatic organisms from settling or surviving. Biocides are sometimes a part of anti-fouling coatings or used in secondary treatment.

Biofouling: a build-up of aquatic organisms like micro-organisms, plants, and animals on surfaces and structures that are in or exposed to the aquatic environment. Biofouling includes microfouling and macrofouling.

Contaminant: any substance that occurs in the environment from human activities that could have a negative impact on the environment.

In-water cleaning: physically removing biofouling and/or surface deposits from submerged surfaces. For the purposes of the guidance, “in-water” refers to the parts of a vessel that are either below the summer load line or normally submerged.

International Maritime Organization: a specialized agency of the United Nations. It's the global standard-setting authority for the safety, security, and environmental performance of international shipping.

Local waters: defined by the relevant authority using a science-based approach as the area near the port that can be reasonably assumed to contain the same aquatic species (like microorganisms, plants, animals) as the port area.

Niche areas: areas of a vessel that may be more likely to be fouled relative to the hull due to different water flow conditions, exposure to wear, or damage. This also includes areas that may not be easy to access, aren't coated, or not well-coated with an anti-fouling system. Niche areas can be on external surfaces (like propeller shafts, dry-dock support strips, inlet gratings, bow and stern thrusters) or internal to the vessel (like sea chests, thruster tunnels, seawater cooling systems).

Relevant authority: the authority or authorities that manage port operations. Relevant authorities can include Canada Port Authorities, municipalities, and public and private ports.

Service life: how long an anti-fouling system is designed to protect a treated surface from biofouling and/or corrosion if applied according to the manufacturer's specifications.

Service providers: companies that clean vessels in-water. Companies can use different cleaning methods and technologies for this service.

Vessel: a boat, ship or craft designed, used, or capable of being used solely or partly for navigation in, on, through or immediately above water, without regard to method or lack of propulsion.

Vessel owner or operator: a vessel's owner, master, authorized representative, or other person in charge of the vessel's operations and record keeping.

2. Target audience

This guidance applies to relevant authorities that manage port operations. This includes Canada Port Authorities, municipalities, and public and private ports. Throughout this document “you” and “your” refer to the relevant authority responsible for implementing the guidance in a particular location.

While the information in this document is for relevant authorities, it may also be useful for vessel owners, operators, and service providers.

3. How to use this guidance

This guidance outlines best practices to help you decide:

- [whether you should allow an in-water cleaning service provider to operate in your waters](#) (see Section 8)
- [whether a vessel should be allowed to clean in your waters using a pre-approved service provider](#) (see Section 9)

These recommendations can help you reduce the risk of introducing aquatic invasive species during in-water cleaning.

You can decide the extent that this guidance is applied within your jurisdiction. Once an in-water cleaning system is approved to operate in your jurisdiction, it's recommended that you approve the cleaning of vessels on a case-by-case basis. However, you can still have policies that either allow or don't allow in-water cleaning within your waters.

The practices outlined in this guidance are based on current knowledge and best available technology and align with the International Maritime Organization's [*Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species*](#).

This document is only a guide. It shouldn't be used as a substitute or replacement for existing legislative requirements.

Everyone involved in in-water cleaning should continue to follow all applicable municipal, provincial or territorial, and federal laws, including the parts of the

[Fisheries Act](#) and the [Canadian Environmental Protection Act, 1999](#) that apply to this activity.

4. What's included in this guidance?

The best practices included in this document mainly deal with cleaning a vessel's hull. However, some guidance is provided for special cases like niche areas and propeller polishing. Other forms of surface treatment to kill biofouling, like encapsulation or heat treatment, are outside the scope of this guidance.

While some of these practices are useful to all vessels, this document only applies to vessels over 24 metres in length. Vessels 24 metres in length and less are still subject to legislation that regulate biofouling, such as the [Aquatic Invasive Species Regulations](#).

5. Background

Biofouling is the build-up of microorganisms, plants, algae, and animals on structures in or exposed to water, including vessels' hulls. Vessel biofouling is one of the main ways aquatic invasive species arrive in Canada. These species can harm aquatic ecosystems, aquatic industries, and recreational activities.

Biofouling also increases a vessel's drag which leads it to use more fuel, emit more greenhouse gases, have higher operational costs, and create more underwater noise.

Biofouling begins to build-up within the first few hours of a vessel being in water. The amount of biofouling on a vessel is affected by many factors including:

- age, condition, and type of anti-fouling system
- temperature and season
- time spent idle (mooring time and anchorage time)
- vessel maintenance and previous in-water cleanings
- vessel speed
- travel history, and
- salinity level of the water

In-water cleaning to remove biofouling from a vessel can be an important part of managing biofouling. But it can also pose risks to local plants, animals, and water quality by releasing organisms and contaminants into the water. In-water cleaning with capture can reduce these risks if you follow best practices.

In-water cleaning should complement, not replace dry-dock maintenance and renewing coatings or other anti-fouling systems.

6. Roles and responsibilities

Relevant authorities, service providers, and vessel owners and operators all have roles and responsibilities for in-water cleaning. Below is a summary of the main roles and responsibilities for each party, more details on each are provided throughout this document.

Relevant authorities

- Evaluate and approve service provider applications
- Review and approve requests for individual vessel cleanings

Service providers

- Arrange third-party tests for in-water cleaning technology
- Give relevant authorities a summary of technology specifications and test results
- Provide a list of coating types that the technology can safely clean based on independent testing or confirmation from coating manufacturers
- Coordinate with vessel owners and operators on cleaning requests

Vessel owners and operators

- Arrange inspections to assess biofouling growth and condition of the anti-fouling system
- Prepare documents so relevant authorities can approve or reject cleaning requests
- Coordinate with service providers on cleaning requests
- Document information about inspections and cleanings in their Biofouling Management Plan and Biofouling Record Book

7. Types of biofouling

Biofouling is divided into 2 broad categories:

Microfouling: microscopic organisms including bacteria and diatoms and the slimy substances that they produce. Biofilm, often referred to as a “slime layer”, is biofouling made up of only microfouling.

Macrofouling: an easy-to-see build-up of large organisms containing distinct multicellular organisms like barnacles, tubeworms, bryozoans, or fronds of algae.

Microfouling has a lower chance of introducing aquatic invasive species and can normally be removed using less aggressive techniques than those used to clean macrofouling. This normally reduces the time needed for cleanings, cost of cleanings, and the risk of damage to the vessel’s coating.

Macrofouling has a higher risk of introducing aquatic invasive species since it can contain a more diverse range of organisms and has a higher risk of damaging anti-fouling coatings. As such, in-water cleaning should be ideally done when only microfouling is present.

With that said, some vessels may need macrofouling cleaned from their hull due to operational realities. This guidance document outlines best practices for cleaning both microfouling and macrofouling, using 2 methods:

- clean without capture, and
- clean with capture

A recent underwater inspection can determine the type and extent of biofouling on a vessel. [Section 9.1 has more information on how to arrange inspections and inspection reports.](#)

8. How to evaluate a service provider's application

You should pre-approve service providers to operate in your waters before they submit requests to clean individual vessels.

There are 2 categories of in-water cleaning services depending on the method that the service provider uses:

- **in-water cleaning without capture:** removes biofouling from the vessel without capturing the biofouling waste
- **in-water cleaning with capture:** removes biofouling using a technology that captures all waste, removes large organisms and particles, and kills or renders remaining organisms non-viable before discharge. "Non-viable" means they can never reproduce. The treatment system can also remove or reduce the release of biocides and other contaminants in the effluent

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When reviewing a service provider's application, you should consider whether the proposed cleaning location has any safety or environmental concerns, like:

- Does the site include a facility that can store the cleaning waste?
- Is there a way to control any accidental spills of biological material or contaminants?
- What are the existing contaminant levels in the water? Pre-existing contaminants can put more strain on a treatment system during cleaning, making it less effective.
- Is the site near a sensitive habitat, species at risk and their critical habitat, or protected area?
- Will the cleaning system emit underwater noise near a critical marine mammal habitat?

8.1 Criteria for all in-water cleaning service providers

When applying to operate in your waters, all service providers should provide you with:

Criteria	What the service provider should provide
<p>Independent testing</p>	<p>Before applying to operate in your waters, a service provider should make sure that any technology they use to clean macrofouling (with or without capture) has been independently tested by a third-party. This testing should:</p> <ul style="list-style-type: none"> • be done by a laboratory or facility that is approved, certified, and audited by an independent accreditation body • include cleaning activities on at least 3 different vessels that represent: <ul style="list-style-type: none"> ○ distinct types of anti-fouling systems, including the softest type of coating the technology is designed to clean, ○ various levels of biofouling, including one vessel fouled to the highest level that the technology is designed to clean, and ○ different environmental conditions like temperature and salinity (if possible) <p>Results from independent testing should be presented to you in full and clear way. These results should show that no contaminants are released during cleaning and that the discharge meets all legal requirements in the jurisdiction where the cleaning will take place. This includes all relevant federal, and provincial or territorial laws like the Fisheries Act and the Canadian Environmental Protection Act, 1999.</p> <p>Service providers should update you on new testing results of their technology as documentation becomes available.</p>
<p>Impact on anti-fouling system</p>	<p>In-water cleaning isn't suitable for all coatings. The service provider should provide results of independent testing that show that the technology doesn't damage the anti-fouling coating. If a cleaning technology is approved for use by a coating manufacturer, the service provider should provide this information.</p> <p>The service provider's practices and procedures should confirm that they take the type of coating into account and only clean vessels according to the coating manufacturer's recommendations.</p> <p>The service provider should stop a cleaning if the coating becomes visibly damaged.</p>

<p>Occupational health and safety</p>	<p>The service provider should provide their practices and procedures that describe how they will meet all relevant occupational health and safety requirements.</p> <p>If the provider uses divers, they should include how they meet all applicable federal and provincial or territorial health and safety legislation for diver safety (for example, the Canada Occupational Health and Safety Regulations).</p>
<p>Environmental protection</p>	<p>The service provider should provide practices and procedures that describe how they will meet all relevant environmental requirements. This should include an environmental risk management plan that outlines possible issues that could arise once cleaning begins and how they will manage these issues.</p> <p>The procedures should include provisions to halt a cleaning if the biofouling accumulation is more than (in percent cover, thickness, or another measurement) reported in the cleaning request, unless the system can be adjusted to deal with the higher level of fouling.</p>
<p>Waste disposal</p>	<p>The service provider's practices and procedures should include a description of how in-water cleaning waste will be handled and disposed of according to all applicable laws. As a precaution, waste should be treated as hazardous as it may contain particles of the anti-fouling coating.</p>
<p>Niche areas</p>	<p>If the service provider plans on cleaning external hull niche areas, they should include a description of the method they will use to do this.</p>

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As part of the independent testing, cleaning technologies should be tested on soft coatings which are more likely to be damaged, like foul-release or self-polishing coatings. If a cleaning technology doesn't damage soft coatings, you can assume it's safe to use on harder coatings. Evidence of damage includes peeling and visible brush marks or swirls.

8.2 Additional criteria for in-water cleaning with capture

If the service provider plans to clean with capture, the test results should also show how their technology and cleaning procedures meet the following criteria:

Criteria	Recommended standard	How to verify
Capture	<p>The technology has enough suction capability to capture biofouling dislodged by the cleaning unit.</p>	<p>The service provider should provide proof of the system's suction capability. Common methods include:</p> <ul style="list-style-type: none"> • sampling total suspended solids in the water near the cleaning unit and comparing the measurements to baseline levels • capturing a non-toxic indicator released 50 cm from the cleaning unit, as described in Morrissey et al. 2015 • capturing dye from packs ruptured by the cleaning unit, as described in Tamburri et al. 2020 <p>Equivalent alternative demonstrations of capture capability could also be accepted. Proof can be supported by video evidence that shows a cleaning without visible plume.</p>
Physical separation	<p>The separation unit should remove particles with a diameter of at least 15 µm (micrometres, commonly known as microns).</p> <p>This recommendation is based on the best available technology. As technology improves this recommendation will be updated.</p> <p>Service providers should plan to have physical separation to 10 µm by April 2023.</p>	<p>The service provider should provide proof or results from independent testing that shows the system's physical separation capability. For example, this could be done by capturing 95% of 15 µm size standard beads during testing.</p> <p>If the service provider uses commercially made filters, they can show physical separation capability by providing technical specifications and documentation for each filter used in the system.</p> <p>This should include:</p> <ul style="list-style-type: none"> • how the filter's capture rate was verified • its retention capability • the filter's designated flow rate, and • technical documentation like flow diagrams or reports

<p>Secondary treatment</p>	<p>Following physical separation, secondary treatment should be used to kill any organisms that remain in the effluent stream or render the organisms non-viable. “Non-viable” means they can never reproduce.</p> <p>Examples of secondary treatment include ultraviolet light, heat, and chemical treatments. If chemical treatment is used or a biocide is added, the chemicals should be neutralized, and biocides removed before discharge.</p> <p>Technologies that have physical separation to 2 µm may operate without a secondary treatment unit.</p>	<p>The service provider should provide documentation or results from independent testing to show secondary treatment capability.</p> <p>Documentation should show the system has secondary treatment with the equivalent dosage (e.g. intensity of ultraviolet light and time exposed, temperature of water, etc.) of an approved ballast water treatment system.</p> <p>Alternatively, testing results should show the secondary treatment meets the criteria listed in Regulation D-2 of the Ballast Water Regulations.</p>
<p>Continuous monitoring</p>	<p>Technical specifications should show how capture performance will be monitored in real time using sensors or cameras.</p> <p>This is usually done by monitoring live video streams from the cleaning unit and/or divers.</p>	<p>The service provider should provide their procedures for cleaning activities to show continuous monitoring.</p> <p>These procedures should note that if plume is detected, cleaning will immediately stop and not resume until the cause for the plume is resolved.</p> <p>The procedures should also specify that cleaning won’t take place unless underwater visibility is 1 metre or more.</p> <p>The cleaning system’s technical specifications should show that cameras will stream video at a minimum quality of Standard High Definition (1280 pixels x 720 pixels) and show both the front and back of the cleaning system.</p>

9. How to evaluate a cleaning request

If a vessel owner or operator and a pre-approved service provider want to perform a cleaning in your waters, they should ask for your approval 7 business days before the cleaning date, and give you these documents:

- In-Water Cleaning Request Form
- information on the vessel's anti-fouling coating, including their Anti-Fouling System Certificate, and
- Biofouling Management Plan and Biofouling Record Book

If the vessel will be cleaned without capture, the In-Water Cleaning Request Form and Biofouling Management Plan and Biofouling Record Book should clearly show that either:

- the build-up is only microfouling (through an underwater inspection report), or
- the build-up happened in local waters (see Section 9.2)

Even if you've been given all the documentation, you can reject a cleaning request if you think the risk of cleaning a vessel in-water is too high. If you want to do a more advanced risk assessment you can ask for more documentation (like environmental certifications, list of last ten ports of call, etc.).

You can reject a request for any reason, including:

- the amount or type of biofouling (percent cover, thickness, etc.) including if independent testing took place on a lower level of biofouling
- the biofouling management plan doesn't address biofouling in niche areas, or
- the documentation is incomplete (for example: infrequent inspections, unclear photos, etc.)

9.1 Recommended documents

Cleaning request form

An [In-Water Cleaning Request Form](#) can be used to summarize the most important information that you'll need to make your decision about approving or rejecting the cleaning request. The form should be completed by the vessel's owner or operator and the service provider.

The In-Water Cleaning Request Form template for you to use is available from Transport Canada's forms catalogue.

All parties should keep a copy of the completed form for their records.

Inspection reports

Reports from a recent underwater inspection should be provided by the vessel owner or operator to determine the type and extent of biofouling on a vessel. Vessel

owners and operators are responsible for arranging inspections. Inspections should follow the International Maritime Organization's Biofouling Guidelines. Inspections can be done by remotely operated vehicles (ROV) or divers that are authorized to dive in port waters.

For an inspection to be considered recent it should reflect the vessel's current condition. This means it was done within the vessel's last few ports of call, isn't older than 28 days, and the vessel hasn't been stationary for more than 7 days since the inspection took place, unless it was in the port where the cleaning will happen. Inspections should include niche areas as they are more likely to have mature biofouling.

Inspection reports should include:

- the time and geographic location of the inspection
- method used for inspection (target areas, transects, etc.)
- type of biofouling present (see Section 7) and its location on the vessel
- approximate percentage of the vessel fouled and if possible, the thickness of the fouling
- condition of the vessel's anti-fouling coating
- clear, in-focus photographs or videos with minimum quality of Standard High Definition (1280 pixels x 720 pixels), and
- any other relevant information from the inspection

Vessel owners and operators are responsible for keeping inspection documents with the vessel's records including in their Biofouling Record Book.

Anti-fouling coatings

To determine if a vessel's coating can be cleaned, the vessel owner or operator should provide you with:

- confirmation that the vessel's anti-fouling system is within its manufacturer-recommended service life
- inspection records that show the vessel's anti-fouling coating is in good condition without damage or deterioration like peeling or bubbling, and
- the vessel's International Anti-Fouling System Certificate
 - certain vessel over 400 GT must have a certificate as required by the [Vessel Pollution and Dangerous Chemicals Regulations](#)

Vessels with coatings that use biocides not authorized for use by the Health Canada Pest Management Regulatory Agency, damaged coatings, or coatings beyond their service life should not be cleaned in-water.

When contracting a cleaning, vessel owners and operators can specify the acceptable amount of coating wear caused by the cleaning activity measured using

the maximum amount of wear in micrometers, a paint deterioration rating, or another method. These metrics depend on coating type, the vessels operations, and many other factors.

Biofouling Management Plan and Biofouling Record Book

The International Maritime Organization's Biofouling Guidelines encourage vessel owners and operators to keep an up-to-date Biofouling Management Plan and Biofouling Record Book. At the very least, these documents should date back to the vessel's most recent dry-docking. You can ask for copies of these documents to verify the information in the cleaning request form.

To create these documents, you can use the template from Transport Canada, but vessels can create their own, or use any other template that meets the International Maritime Organization's Biofouling Guidelines.

[Biofouling Management Plan and Biofouling Record Book template](#)

Info box

Want to help Transport Canada collect data on in-water cleanings?

Please email biofouling-encrassementbiologique@tc.gc.ca with information on the:

- size of the vessels being cleaned
- number of vessels being cleaned
- flag of vessels
- cleaning methods (clean with, or without capture)
- if biofouling came from local waters or not, and
- type of biofouling

9.2 Cleaning method

When a vessel owner or operator requests a cleaning without capture, they should provide you with additional documents that clearly show that either:

- only microfouling is present, or
- the biofouling has built-up in local waters

If the vessel doesn't meet one of these criteria, it should only be cleaned with capture.

All cleaning methods, both with capture technologies and without, should comply with the [Fisheries Act](#)'s provisions on the release of deleterious substances.

Only microfouling

Microfouling can be removed without capture.

In their cleaning request form, the vessel's owner or operator should explain what type of biofouling is on their vessel. This should be supported with underwater inspection reports and documentation.

You should assume that there's macrofouling if:

- there hasn't been a recent underwater inspection that represents the vessel's current condition, or
- there isn't enough information to conclusively determine the type of biofouling

If a vessel only has microfouling on the hull but has macrofouling on niche areas, cleaning without capture can still happen if there is a low chance that the niche areas will be affected by the cleaning system. This decision should be made on a case-by-case basis, taking the following into consideration:

- if the macrofouling is on an internal niche area or on an external niche area that isn't part of the hull, like the propeller shaft, the vessel could be cleaned without capture since the cleaning system isn't likely to touch these niche areas, or
- if macrofouling is found on external niche areas that are on or near the hull, like intake gratings or dry-dock support strips, cleaning should be done with capture unless the macrofouling is from local waters

Biofouling built-up in local waters

Biofouling that has built-up in local waters can be removed without capture. A vessel has local biofouling only if it hasn't left local waters since its last hull cleaning, either in-water or in dry-dock.

Biofouling on vessels that have stayed in local waters would be anticipated to only have organisms already present in the location of the cleaning and as such there's no risk of introducing or spreading new non-indigenous species.

When submitting the cleaning request form, the vessel owner or operator should provide supporting documents that show the vessel's voyage history and inspection reports since its last dry-dock cleaning or in-water cleaning. Ideally this information should be included in a Biofouling Management Plan and Record Book and can be used to determine if the origin of the biofouling is local.

You should assume that the biofouling isn't local, and only allow in-water cleaning with capture if:

- there's not enough information to determine the geographic origin of the biofouling
- there's any doubt as to the origin of the biofouling, or

- the vessel doesn't have a Biofouling Management Plan or Biofouling Record Book

As a relevant authority, you determine the definition of “local waters” in your jurisdiction. Biofouling from local waters has a low risk of introducing aquatic invasive species because it only contains organisms already present in your jurisdiction.

A vessel is more likely to be carrying an aquatic invasive species or present a higher risk if:

- it has crossed a natural or anthropogenic barrier (salinity changes, canals, locks, etc.)
- it has traveled between bodies of water
- it has traveled between Canada's marine ecoregions
- there are nearby protected areas
- critical habitats of species at risk are nearby, or
- the vessel has visited other ports, wharfs, anchorages, etc.

 Info box

You can contact [Fisheries and Oceans Canada](#) to participate in aquatic invasive species early detection and monitoring activities that may be occurring in your region. These activities target locations where aquatic invasive species are most likely to establish, like ports. For areas especially susceptible to aquatic invasive species introductions, sampling programs may be recommended.

9.3 Special cases

Propeller cleaning

Propeller cleaning and polishing can be an important part of the vessels' routine maintenance. Frequent in-water cleaning when microfouling is present is an effective measure to limit the build-up of macrofouling. If there's a build-up of macrofouling on the propeller, in-water cleaning should ideally follow the same best practices recommended for hull cleaning.

Propeller cleaning must abide by all relevant federal and provincial or territorial legislation.

Niche areas

Niche areas are more likely to have biofouling due to different water flow conditions, exposure of the coating system to wear or damage, or areas that may be

inadequately, or not painted. However, many in-water cleaning systems are currently unable to clean all niche areas. Whenever possible cleanings should include external niche areas like water intake gratings and dry-dock support strips.

Niche areas that are internal to the vessel, like cooling pipes and sea chests, are outside the scope of this guidance. Biofouling in these areas is normally managed using a marine growth prevention system or other type of anti-fouling technology.

10. Day of cleaning

Environmental conditions

On the day of the cleaning, you should check the environmental conditions to prevent unforeseen issues with the cleaning process. You should check factors like:

- safety concerns (nearby vessels, port operations, dredging, etc.)
- weather conditions (height of waves, water clarity, etc.), and
- any ecological or environmental concerns (higher than normal pollution levels, nearby marine mammals, etc.)

If conditions aren't suitable to do an in-water cleaning, the cleaning can be postponed to another day or time. There's no need for the In-Water Cleaning Request Form to be re-submitted as long as vessel and biofouling conditions remain the same.

Info box

If an accidental release of biological material or contaminants occurs, the service provider should immediately take all measures necessary to contain and prevent any further release into the environment. The service provider should let you, and other authorities, know about the spill, as required by law.

Annex 1: Responsibility chart for setting up in-water cleaning operations

Step	Service provider	Relevant authority
Application to set-up in-water cleaning operations	Submits application and supporting documentation, including results from independent testing.	Verifies application is complete and contains all necessary documents.
Location of cleaning (Section 8)	Provides any additional information on technology and operations that may help relevant authority determine if the cleaning location is appropriate.	Verifies the location is appropriate for in-water cleaning, and considers: <ul style="list-style-type: none"> • facilities to store the cleaning waste • ability to contain a spill or release of biological material or contaminants • existing water contamination levels • nearby sensitive habitat, species at risk, or protected areas
Independent testing (Section 8.1)	<p>Makes sure that technology was tested by an independent third-party on at least 3 vessels with different types of anti-fouling systems, levels of biofouling, and, if possible, environmental conditions.</p> <p>Testing shows the technology doesn't damage the anti-fouling coating or release contaminants into the water.</p>	<p>Verifies supporting documents shows the technology was independently tested.</p> <p>Confirms documentation shows the technology doesn't release contaminants.</p>
Practices and procedures (Section 8.1)	<p>Provides written copies of their practices and procedures on:</p> <ul style="list-style-type: none"> • occupational health and safety • environmental requirements, including an environmental risk management plan • waste handling and disposal according to all applicable laws 	Verifies supporting documents show the service provider has appropriate practices and procedures to operate safely.

<p>Additional criteria for clean with capture (Section 8.2)</p>	<p>Provides full testing results and a clear summary that shows the technology meets the following criteria:</p> <ul style="list-style-type: none"> • suction to capture dislodged biofouling • physical separation to 15 microns • secondary treatment or 2 micron separation • real-time video or sensor monitoring 	<p>Verifies the supporting documentation shows the technology meets all additional criteria if plan is to clean with capture.</p>
<p>Decision</p>	<p>n/a</p>	<p>Relevant authority approves or rejects the request for the service provider to operate in their jurisdiction.</p>

Annex 2: Review of cleaning requests

