

# YOUR PARTNER FOR RESPONSIBLE FISHING

SUPPORTING THE WORLD'S  
SEAFOOD INDUSTRY LEADERS

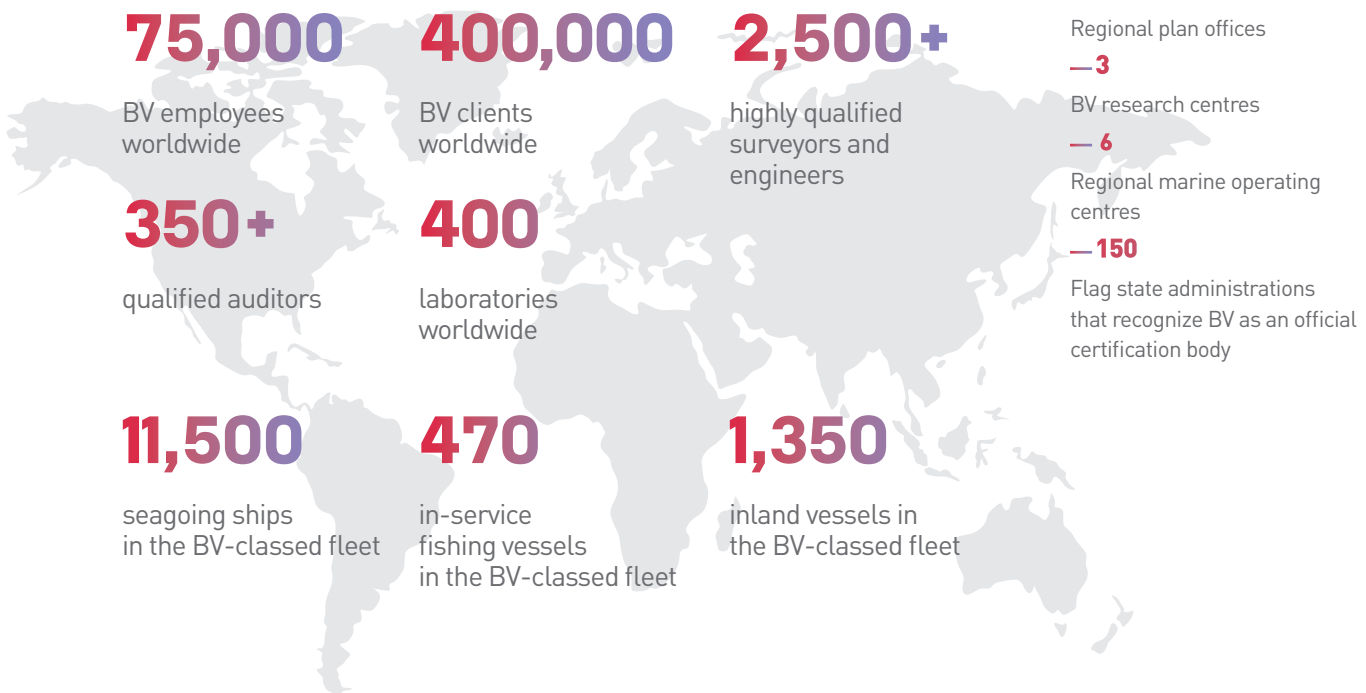


BUREAU  
VERITAS

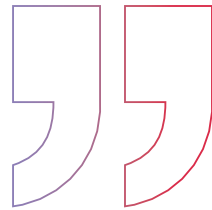
# A SUSTAINABLE HIGH-QUALITY VALUE CHAIN

ENVIRONMENTAL AND SOCIAL RESPONSIBILITY ARE GROWING PRIORITIES FOR CONSUMERS, ACTIVISTS AND NON-GOVERNMENTAL ORGANIZATIONS THE WORLD OVER. FOR THE GLOBAL SEAFOOD INDUSTRY — A MARKET WORTH OVER \$400 BILLION USD — MEETING THESE EXPECTATIONS MEANS ASSESSING AND IMPROVING PRACTICES THROUGHOUT THE VALUE CHAIN, STARTING WITH RESPONSIBLE SOURCING. THIS REQUIRES SHIP OWNERS TO IMPROVE THE SAFETY AND SUSTAINABILITY OF THEIR VESSELS IN ORDER TO MAINTAIN THEIR BUSINESS.

## LEVERAGING HISTORICAL RELATIONSHIPS TO BUILD A SUSTAINABLE FUTURE



# SHAPING TRUST IN THE FISHING INDUSTRY



Capture fishery is one of the most dynamic sectors in international trade, enabling over 39 million people to contribute to their local economies and create food security. At the same time, fishermen face difficult conditions; work is often carried out in harsh environments, at night and in heavy weather. Ensuring safety at sea and improving the onboard living and working conditions of crewmembers are top priorities for the owners of fishing vessels.

## **OUR COMMITMENT TO SAFE, SUSTAINABLE AND RESPONSIBLE FISHING**

For nearly 200 years, Bureau Veritas has partnered with the global fishing industry to provide expertise, mitigate risk, ensure compliance, support performance and boost safety at sea.

Today, we are the leading classification society providing services to the fishing industry and partnering to advance the energy transition and accelerate maritime digitalization.

Thanks to our longstanding relationships with major fishing companies and seafood producers and distributors, we are helping develop a sustainable fishing industry with a safe, equitable value chain.

Bureau Veritas offers key classification services to help ship owners ensure the safety and reliability of their fishing vessels. We have dedicated Rules for the design and construction of newbuilds, and class notations for specific operational conditions and equipment, including systems for automation and refrigeration. Ships that comply with statutory requirements can go a step further, taking a more in-depth approach to topics like life-saving equipment (e.g., rafts, safety vests) and fire protection.

For ship owners, undergoing classification is already a major differentiator in terms of environmental and social responsibility. Classification enables vessel owners to prove the safety and functionality of their ships, guaranteeing the wellbeing of personnel, the condition of hulls, and the reliability of onboard machinery. By classing their fishing vessels, ship owners can demonstrate their efforts to become part of a more sustainable supply chain.

**BUREAU VERITAS SHAPES A  
WORLD OF TRUST, WORKING WITH  
LEADING FISHING COMPANIES TO  
IMPROVE SAFETY, RELIABILITY  
AND EFFICIENCY AND ACHIEVE  
SUSTAINABLE GROWTH WITH  
CLASSIFICATION RULES AND  
CERTIFICATION TO INTERNATIONAL  
STANDARDS.**

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### **Jean Michel Chatelier**

Global Market Leader for Fishing vessels  
Bureau Veritas Marine & Offshore

# BUREAU VERITAS

## A TRUSTED PARTNER AROUND THE WORLD



BUREAU VERITAS IS A LEADING TESTING, INSPECTION AND CERTIFICATION BODY WITH OVER 190 YEARS' EXPERIENCE PROVIDING QUALITY, HEALTH, SAFETY AND ENVIRONMENTAL SERVICES. WE SUPPORT CLIENTS ACROSS INDUSTRIES IN TACKLING THE CHALLENGES OF A FAST-EVOLVING WORLD, FROM CLIMATE CHANGE TO DIGITALIZATION.



Bureau Veritas Marine & Offshore's mission is twofold: assuring the safety of crew, assets and operations, and innovating for our clients. Our engineers, surveyors, naval architects, structural specialists and more provide clients with unparalleled expertise, leveraging our connections and industry knowledge to ensure successful projects.

As a Business to Business to Society company, we contribute to transforming the world we live in and building trust among companies, public authorities, and consumers. A world leader in testing, inspection and certification (TIC), we help clients across industries address challenges in quality, health & safety, environmental protection and social responsibility.

### A WIDE RANGE OF SERVICES

Bureau Veritas offers high-quality classification and certification services to help ship owners and operators secure operating licenses and maximize performance and safety at sea.

- Classification ensures that a fishing vessel is built and maintained to the highest standards of safety, performance and sustainability.
- Certification demonstrates compliance with national and international regulations, such as the IMO Cape Town Agreement of 2012 and the ILO Work in Fishing Convention (C188) of 2007.

### A WORLDWIDE PRESENCE

Our experts help clients solve complex technical problems, meet regulatory requirements, go beyond regulations when necessary, and optimize safety and performance. As a classification society, we bridge the gap between regulations and the needs of ship owners and operators. By setting rules for fishing vessels and ensuring they are met, we contribute to maintaining safety at sea.

### FROM ARCTIC TO ANTARCTIC

With 470 fishing vessels in the BV fleet and 80 in progress, Bureau Veritas is the leading classification society providing services to the fishing industry. We operate in all major countries, including Spain, France, Ireland, Morocco, Denmark, the Netherlands, Argentina, Chile and Namibia, with vessels sailing from the Arctic Ocean to the Furious Fifties in the Antarctic.

### A GUIDING PRESENCE IN KEY FISHING AREAS

Bureau Veritas supports a wide variety of stakeholders in the fishing industry around the world, with a strong focus on large fishing vessels, such as tuna purse seiners and factory stern trawlers. Our experts provide services across the value chain, from upstream wild catching and aquaculture, to downstream trading and seafood services. We support the safe construction and operation of fishing vessels, offering lifecycle services and ensuring compliance with national and international standards.



# OVERCOMING THE CHALLENGES OF FISHING INDUSTRY



We understand the challenges facing the fishing industry. Fishing vessels operate in rough environments where compliance with safety standards is non-negotiable. Poor design and construction or faulty equipment can lead to high operating costs and a shortened operating life. Inefficient safety management can lead to loss of life and cargo, and damage ship owners' reputations.

Our mission is to serve society, enabling companies to overcome today's challenges — from climate change, to urbanization, to digitalization — while protecting employees and consumers. We leverage our longstanding experience, deep industry knowledge, unrivalled expertise and innovative technologies on behalf of our clients, helping them Shape a World of Trust.



## CLASSIFICATION MAKES THE DIFFERENCE

Bureau Veritas offers a series of dedicated Rules for the design and construction of fishing vessels, developed in collaboration with industry players. Bureau Veritas also brings expertise and innovation to increasing vessel performance and limiting environmental impact (e.g., through the installation of onboard gas-fuelled and electric-hybrid propulsion systems).

Our classification services include drawing review, survey at yard, materials and equipment certification, and sea trial monitoring to verify compliance with classification rules. We also offer a range of additional classification notations. Some are designed to address specific operational conditions, such as navigation in drifting ice and polar environments. Others target specific equipment, including automated systems, refrigerated installations and fire protection and anti-pollution systems. Our notations also cover compliance with international standards (e.g., the Torremolinos Convention).

Bureau Veritas provides a framework for safe vessel operation and condition maintenance throughout the vessel's lifecycle. We conduct surveys to ensure ongoing compliance with classification Rules. This includes the inspection of the structural areas and systems most prone to failure or corrosion, with clear acceptance criteria based on monitoring techniques for hull structure and other vessel items. The results of our surveys are documented in vessel history reports.

# DECADES OF PARTNERSHIP WITH **KEY OPERATORS**

BUREAU VERITAS HAS A LONG HISTORY OF WORKING ON ALL TYPES OF FISHING VESSELS, FROM COASTAL FLEETS TO LARGE VESSELS, EMBRACING EVERY TYPE OF CATCH AND FISHING GEAR. OUR CLASSIFICATION AND CERTIFICATION SERVICES HAVE BEEN INSTRUMENTAL TO THE SUCCESSFUL CONSTRUCTION, OPERATION AND MAINTENANCE OF FISHING VESSELS AROUND THE WORLD.

## **A PARTNER TO THE GLOBAL FISHING COMMUNITY**

Bureau Veritas has experience working with all types of fishing vessels and a strong presence in major fishing areas. In the past few decades, we have classed nearly 6,000 fishing vessels worldwide, providing surveys during construction as well as classification of in-service ships.

We are a key partner for fishing companies around the world, including Albacora, Dimarosa, Grupo Nores, Parlevliet & van der Plas, Pescanova, Sapmer, Saupiquet, Scapêche, and Testa & Cunhas, supporting each company in their choice of technology.

We provide services to the major shipyards involved in design and construction of fishing vessels. These include Astilleros Armon, Astilleros de Huelva, Astilleros Gondan, Astilleros de Murueta, Astilleros Ria de Aviles, Astilleros Zamakona, Barreras, C.N.Paulino Freire, Fitjar Mekaniske Verksted, Hall Russel, Karstensens Skibsvaerft, Padmos Stellendam, Piriou and Vestvaerftet.

## **EXPERTISE FOR ALL TYPES OF FISHING VESSELS**

Bureau Veritas also has experience working with coastal fishing vessels in countries such as France, where regulations require a review of the hull design and on-site presence during construction. Bureau Veritas' expertise also extends to specialized vessels, such as those used for oyster farming and mussel breeding.

Thanks to its knowledge of all types of offshore activity, Bureau Veritas can offer classification and certification for fish farms moored offshore or located in sheltered areas. In addition, all types of aquaculture vessels, such as live fish carriers, fish processing barges, workboats and crew boats, may be classed or certified within the scope of the general safety policy adopted by the fish farming company.

# 470

**BV-CLASSED FISHING VESSELS**


# 120

**FISHING VESSELS ORDERED IN 2019-2020 TO BV CLASS**

# 50+

**FISHING VESSELS UNDER CONSTRUCTION BEING BUILT TO BV CLASS**

## **IMPROVING SUSTAINABILITY FOR THE FISHING INDUSTRY**

 Bureau Veritas Solutions Marine & Offshore develops tailor-made solutions backed by our marine engineers and naval architects, and delivered through our network of technical centres.

Its focus is on consulting services for sustainability, with energy efficiency studies scheduled for each vessel. For newbuilds, our experts assess hull performance and efficiency based on the real operating conditions of fishing vessels, performing highly accurate energy modelling and predicting performance at sea.

Clients have access to a wide range of additional sustainability services, including impact monitoring, emissions reduction and ship optimization and modification. Through these services, BV Solutions M&O supports clients in improving fleet sustainability and meeting the environmental objectives of the marine community.

BV Solutions M&O is the BV Group dedicated company providing independent support for Marine & Offshore non-classification activities to clients via its core services, including risk assessment, project management, technical consulting, digital solutions and environmental development.



# EXPERTISE IN STATUTORY REGULATIONS

UNLIKE MOST SHIP TYPES, FISHING VESSELS ARE NOT SUBJECT TO MOST OF THE INTERNATIONAL MARITIME ORGANIZATION'S REGULATIONS. WHILE THERE IS CURRENTLY NO UNIFORM INTERNATIONAL REGULATION FOR FISHING VESSELS, INTERNATIONAL ORGANIZATIONS (IMO, ILO AND FAO) ARE PROMOTING THE ADOPTION AND IMPLEMENTATION OF INTERNATIONAL STANDARDS TO PROVIDE A SOLID FRAMEWORK FOR THE SAFETY OF FISHING VESSELS AND FISHERMEN. MORE THAN 150 FLAG STATE ADMINISTRATIONS ALREADY RELY ON BUREAU VERITAS TO VERIFY SHIP COMPLIANCE WITH NATIONAL AND INTERNATIONAL REGULATIONS FOR MARINE SAFETY AND ENVIRONMENTAL PROTECTION.

## ACCOMPANYING SHIP OWNERS THROUGH CHANGES

Although the first attempt at uniform vessel regulation — the Torremolinos International Convention for the Safety of Fishing, proposed in 1977 — never gained enough support to be ratified, Bureau Veritas was involved in its development from the beginning. We work to these standards on either a voluntary basis when requested by fishing companies, or as a requirement for some national authorities.

The more recent 2012 Cape Town Agreement could be ratified soon, and Bureau Veritas is already prepared to accompany ship owners through that upcoming historical leap. Bureau Veritas helps operators comply with international conventions, ensure smooth inspection by state authorities, and reduce detention risks.

## PARTNERING WITH NATIONAL ADMINISTRATIONS

France is the country where Bureau Veritas has been the most involved in ensuring the safety of coastal fishing vessels, with more than fifty years of experience. France's national regulations include comprehensive requirements for ships longer than 12 meters, including standards for design, equipment, protection of openings and stability criteria. The French flag has delegated Bureau Veritas for the issuance of its national loadline certificate, which is issued after approval of hull drawings, the stability file, construction at yard and successful sea trials.

Thanks to this, almost the entire fleet of 700 fishing vessels from 12-24 meters long currently operating under the French flag has been built under Bureau Veritas supervision. These vessels are subject to annual surveys and Bureau Veritas has been delegated to perform inspections relating to the loadline certificate. Our network of surveyors benefits from longstanding experience in all types of catch and vessels from all regions, including multipurpose or specialized vessels equipped with trawl nets, seine nets, gillnets, driftnets, longlines, or crab & lobster pots. Bureau Veritas contributes to ensuring safety at sea by participating in several regional commissions, as well as in regulatory working groups and by performing accident investigation.



## IMPROVING SAFETY MANAGEMENT

The International Safety Management (ISM) Code was created to improve safety and prevent pollution at sea. Bureau Veritas has over 350 qualified auditors worldwide performing ISM audits and issuing certificates. Certification may be offered to fishing companies on a voluntary basis to help companies demonstrate the excellence of their safety management systems.

# SUPPORTING OUR CLIENTS IN THEIR SUSTAINABILITY JOURNEY

MINIMIZING ENVIRONMENTAL IMPACT AND ACCELERATING THE ENERGY TRANSITION ARE KEY PRIORITIES FOR BUREAU VERITAS AND OUR CLIENTS IN THE MARINE INDUSTRY. OUR SERVICES HELP SHIP OWNERS ADOPT A HOLISTIC APPROACH TO SOCIAL AND ENVIRONMENTAL RESPONSIBILITY.

## CONTROLLING RISKS OF POLLUTION

The optional classification notation CLEANSHIP, complete with additional specific notations, may be assigned to ships that are designed and equipped to control and limit emissions. It covers three areas: air, water and waste. These notations provide ship owners with proof that their choice of equipment, vessel design and onboard procedures help minimize pollution and mitigate risks. Several additional notations are available for upgrading onboard installations, such as ADVANCED WASTEWATER TREATMENT PLANT (which can help owners meet specific regional requirements) and GREY WATER TREATMENT

The additional class notation GREEN PASSPORT may be assigned to ships complying with the 2009 Hong Kong Convention or European Regulation nr. 1257/2013. This requires owners to identify, quantify and list onboard materials that may harm people or the environment throughout ship lifecycle or when removed during ship recycling.

## ADOPTING ALTERNATIVE ENERGIES

We further support fishing vessel owners in their efforts to minimize environmental impact by using more sustainable fuels and alternative propulsion methods.

Potential long-term, alternative solutions include thermal engines, fuel cells and batteries, including hybrid installations. As a leading classification society with expertise in alternative fuels, Bureau Veritas is committed to partnering with the fishing industry to develop new technologies and publish comprehensive rules that account for the complete lifecycle of the ship, from design and construction to operations and maintenance. We are there to help ship owners navigate the challenges of developing more sustainable ships and identify a pathway to compliance. To help decision makers choose a long-term solution while the next stage of alternative fuel and technology development is underway, Bureau Veritas offers classification rules for ships designed to switch to alternative fuels later on.



## PROTECTING MARINE HABITATS FROM INVASIVE SPECIES

The introduction of foreign or invasive species into new marine ecosystems can harm existing species and degrade their environment. To protect marine habitats, Bureau Veritas helps ship owners develop and maintain a Ballast Water Management Plan throughout the ship lifecycle. We provide expertise and certification services to Ballast Water Treatment System manufacturers according to the International Convention for the Control and Management of Ships' Ballast Water & Sediments (BWM Convention). We offer technical and regulatory assistance, deliver type approvals and BWM certificates, and enable owners to plan regular surveys.



# GUIDING FISHERMEN TOWARD GREATER SUSTAINABILITY

BUREAU VERITAS MARINE & OFFSHORE AND BUREAU VERITAS CERTIFICATION WORK TOGETHER TO HELP MINIMIZE THE IMPACT OF FISHING AND PROMOTE SUSTAINABLE FISHING PRACTICES.

## HELPING YOU ACHIEVE 30X30

Sustainability is a top priority for the maritime industry, and Bureau Veritas is committed to helping fishing industry actors meet their targets for reducing environmental impact and join the global movement to protect at least 30% of our planet's oceans by 2030 ("30x30"). This initiative emphasizes safeguarding marine life and habitats, promoting biodiversity and limiting climate impact. We are pleased to play our part in protecting the ocean, its inhabitants and the environment.

## PROVING ENVIRONMENTAL BEST PRACTICE WITH THE OCEAN APPROVED® LABEL

In collaboration with the Fondation de la Mer and the French Ministry of the Sea, Bureau Veritas has launched the new Ocean Approved® label. This label recognizes companies undertaking concrete actions — e.g., reducing use of plastic materials, improving wastewater treatment and protecting coastal areas — to limit their impact on the ocean. To earn the label, companies must undergo an audit, proving compliance with best practice standards and showing ongoing improvement.

## PROTECTING MARINE LIFE

Ships emit noise and vibrations when sailing, which can disturb or harm underwater life. Ship owners can earn Bureau Veritas' Underwater Radiated Noise (URN) notation, which demonstrates that specific actions have been taken to reduce onboard noise and vibrations. We help ship owners conduct URN measurements, and choose and implement solutions for limiting noise from engines and propellers.

Our experts provide certification to sustainable fishing standards like the Marine Stewardship Council, which promotes biodiversity and helps replenish fish stocks. We further provide social audits for fishermen and fishing vessels, ensuring that socio-environmental best practices are being respected.

## ENSURING SOCIAL ACCOUNTABILITY ONBOARD

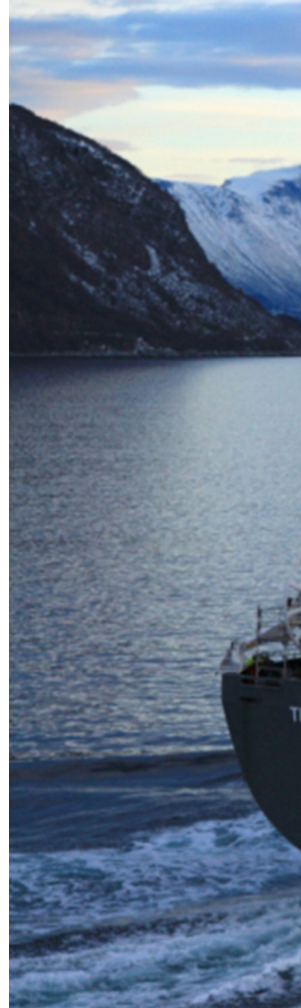
Ship owners and managers have a responsibility toward their crewmembers to ensure that their working conditions are safe and humane. A variety of voluntary standards exist to help vessel owners protect workers, providing guidance and best practice measures for the fair treatment of fishermen.

Bureau Veritas audits vessels to ILO C188 "Work in Fishing Convention, 2007" and programs like the Responsible Fishing Vessel Standard (RFVS) and the Fairness, Integrity, Safety and Health (FISH) Standard for Crew. Both standards address working conditions, labour contracts and onboard accommodations, and the RFVS further covers sustainability aspects of catching and transporting fish. Bureau Veritas' qualified auditors can verify onboard conditions, helping vessel owners demonstrate compliance.

## IMPROVING SOCIAL RESPONSIBILITY

As health and safety have become increasingly important, Bureau Veritas has developed two notations for managing biological risks. Our BIORISK MANAGED and BIORISK SECURED notations enable ship owners to develop and implement an outbreak management plan, improving crew safety.





# RESPONSIBLE FISHING

# THE JOURNEY

# FROM NET TO PLATE

BUREAU VERITAS SUPPORTS THE FISHING INDUSTRY IN ITS EFFORTS TO DEVELOP MORE RESPONSIBLE FISHING PRACTICES. OUR CERTIFICATION SERVICES ENABLE OUR CLIENTS TO CONFORM TO RECOGNIZED SUSTAINABLE FISHING STANDARDS, DEMONSTRATE FULL TRACEABILITY, AND IMPROVE BRAND IMAGE.

## ACTIVE THROUGHOUT THE FOOD VALUE CHAIN

For more than 30 years, Bureau Veritas has delivered Testing, Inspection, Audit & Certification services across the seafood supply chain, from fishermen to retailers. A robust network of seafood experts in major fishing areas, including the EU, Africa, Asia and Latin America, helps clients manage safety, quality, sustainability, and traceability issues.

## ONBOARD REFRIGERATION AND TRANSPORTATION

For fishing vessels, properly functioning refrigeration technology is indispensable. Bureau Veritas has the experience needed to inspect the installation of refrigeration systems and can help fishermen preserve the value of their catch until their vessel returns to port. Bureau Veritas offers a QUICKFREEZE class notation for the refrigerated areas of fishing vessels and factory ships. This notation ensures that the design and equipment of these units enables quick-freezing of fish to specific standards.

## VERIFYING FOOD SAFETY FROM PORT TO PLATE

The journey from sea to shore presents a set of challenges for sustainability, as the transportation of seafood must remain safe, hygienic and legal. Once fish arrive at port, they must be correctly unloaded, handled, measured and weighed before being transported to their final destination in factories, restaurants and markets.

At port, Bureau Veritas provides key food safety inspection services, including hygiene, cold chain and HACCP audits, and laboratory testing on ice, water and fish. Our experts further provide quality and freshness grading and weighing inspections during unloading at port. We also participate in the Fishery Observer Program, which collects catch data from vessels, enabling associations to assess the impact of fishing on fish stocks, observe catch composition and verify traceability.

## INTERNATIONAL STANDARDS FOR DEMONSTRATING BEST PRACTICE AND SUSTAINABILITY EFFORTS:

- Food safety certification: GFSI, BRC, IFS, FSSC22000
- BV recognition for responsible fishing and sourcing
- Sustainable fishing eco-label: MSC Fishery Certification
- Traceability: MSC Chain of Custody certification
- Tuna "FAD free" traceability and recognition for fishing best practices



## CERTIFYING END-TO-END TRACEABILITY

Upon arrival, suppliers must be able to prove to buyers that a responsible approach to sustainability has been taken throughout the value chain. From limiting the environmental and social impact of sourcing, to ensuring clean unloading and safe transportation, traceability is key to proving suppliers' claims.

Bureau Veritas certifies clients to the Marine Stewardship Council (MSC) eco-label. Built on three principles, MSC focuses on maintaining fish stocks, minimizing impact on the marine ecosystem, and improving fishery management. This is complemented by MSC Chain of Custody (CoC) certification, which is applicable to the entire supply chain. With this, suppliers can verify end-to-end traceability, assuring buyers that fish came from MSC certified fishing processes.

Bureau Veritas also provides a customized solution for responsible fishing and sourcing that covers food safety and quality, environmental impact, social accountability and traceability. Our experts perform a gap analysis and feasibility study to create a personalized program for each client built on best practice from sourcing, to transportation, to use. Clients can use this as a standalone program, or as an interim solution while becoming eligible for MSC certification.

## BUILDING SUSTAINABILITY INTO EACH STEP

Because the value chain for the fishing industry is long and complex, it is essential to improve sustainability at each stage and for each supplier. As a classification society and testing, inspection and certification partner, Bureau Veritas aims to help stakeholders verify that the fish they catch, transport, buy and sell are certified, healthy and sustainable from end to end.

### EU OR FDA REGULATIONS THAT DEMONSTRATE COMPLIANCE WITH:

- Food safety: hygiene, cold chain and HACCP inspection or audit, seafood testing, ice and water testing
- Quality and size: freshness grading and sizing
- Traceability: inspection and audit
- Sustainability: fishing observer program

# ENSURING CYBER SECURITY FOR FISHING VESSELS

THE NEXT WAVE OF CHANGE FOR THE FISHING INDUSTRY IS COMING IN THE FORM OF DIGITALIZATION, AS SHIPS BECOME INCREASINGLY CONNECTED. BUREAU VERITAS IS AT THE FOREFRONT OF CYBER SECURITY FOR THE FISHING INDUSTRY.

## A CYBER SECURITY ECOSYSTEM FOR FISHING VESSELS

Cyber protection is a growing concern for the marine industry, with organizations like IMO passing legislation to mandate the inclusion of cyber risk management onboard. For fishing vessels, these measures are particularly salient due to increasing demands for supply chain traceability. The highly advanced and interconnected systems onboard that improve traceability can leave fishing vessels vulnerable to cybercrime.

With 360° knowledge of the industry's available solutions, Bureau Veritas can create a comprehensive cyber security ecosystem for fishing vessels. Our in-house marine experts work hand-in-hand with cyber security experts from Secura. Recently acquired by Bureau Veritas, Secura provides security testing, audits, training and certification services for networks, systems, applications and data.

Bureau Veritas also helps clients develop robust cyber risk management systems and earn cyber security notations. Our CYBER MANAGED notation is granted to clients who use a risk-based methodology and standardized framework to analyse and mitigate risk. Our CYBER SECURE notation ensures compliance with IACS cyber security guidelines, adding a "secure by design" layer to procedural aspects covered by CYBER MANAGED.



# LEVERAGING DIGITAL FOR MORE EFFICIENT OPERATIONS

FISHING VESSELS ARE INCREASINGLY CONNECTED. BUREAU VERITAS PROVIDES SERVICES TO HELP FISHING VESSEL OWNERS LEVERAGE THEIR DATA AND REAP THE BENEFITS OF DIGITALIZATION.

## BOOSTING EFFICIENCY AND SUSTAINABILITY WITH REMOTE INSPECTIONS

Remote inspections are growing in popularity and scope, offering benefits to energy providers and ship owners that range from faster and safer surveys to reduced environmental footprint. Bureau Veritas' industry leadership in remote inspections enables our clients to take full advantage of cutting-edge technology and our experts' unrivalled know-how.

Our trained inspectors use remotely controlled drones and robots, live-streaming solutions and augmented reality to conduct partly or fully offsite remote inspections. Ships undergoing remote inspection can limit resource expenditure, minimizing the environmental impact of onboard surveys. Remote inspections further improve survey efficiency and facilitate maintenance, providing faster decision-making and shorter response times, and helping companies meet regulatory, health, safety and quality needs.



## SEEING THE FUTURE WITH PREDICTIVE MAINTENANCE

Increased digitalization brings with it the possibility of predictive maintenance, which offers ship owners more accurate information about their assets, and the ability to anticipate and rapidly resolve problems.

Bureau Veritas is developing optimized and predictive surveys, which use a risk and condition-based approach to evaluate when a ship should undergo survey. By continuously collecting data from vessels, our experts can perform condition-based monitoring, using the ship's complete maintenance history alongside the most recent asset data.

Bureau Veritas experts have already laid the groundwork for optimized and predictive surveys, thanks to our existing digital tools, such as remote inspection and 3D Classification, which simplify data collection and analysis.

**~20,000**  
remote inspections  
conducted by bureau veritas  
in 2020

# A CLASSIFICATION PARTNER OF CHOICE

FOR MANY YEARS, BUREAU VERITAS HAS WORKED WITH MARINE STAKEHOLDERS WORLDWIDE AND THROUGHOUT THE FISHING INDUSTRY VALUE CHAIN.

## **WE KNOW THE FISHING INDUSTRY**

Our client list features major operators on all continents. Our reputation for safely concluding projects and providing excellent compliance services is unrivalled, and our understanding of clients' needs for advancing sustainability is thorough.

## **WE KNOW FISHING VESSELS**

Bureau Veritas has assessed innovative new designs throughout the history of fishing, including the first stern trawlers, coastal shelter deck trawlers, and long tuna purse seiners. We remain pioneers in the qualification of new technologies, working with the best innovators in the industry. Ship owners and shipyards around the world trust us with the classification of their fishing vessel projects throughout the construction process. They rely on our comprehensive knowledge of internal systems for fishing vessels, from hulls, to propulsion systems, to fishing equipment, and we accompany ship owners in managing statutory regulations.

## **WE KNOW SOCIAL ACCOUNTABILITY**

Thanks to our years of experience providing social audits for ILO's Maritime Labour Convention for merchant marine ships, Bureau Veritas can provide audits for new conventions and social standards specific to the fishing industry.

## **WE KNOW SUSTAINABILITY**

Bureau Veritas helps ship owners build a complete ecosystem of sustainability for their ships, offering real solutions to reduce environmental impact across the lifecycle. Our solutions are designed to help optimize fuel efficiency, limit emissions and protect the marine ecosystem. Our BV Green Line of services helps clients implement, measure and achieve their sustainability objectives, while improving health and safety.

## **WE KNOW DIGITALIZATION**

Bureau Veritas is anticipating clients' needs as we enter the next age of maritime digitalization. We are committed to ensuring the safety of connected ships and offshore units, and helping clients leverage their data to optimize asset use and operational efficiency. We are industry leaders in the field of cyber security, early adopters of remote inspection techniques, and pioneers in predictive maintenance.

## **WE KNOW THE FOOD VALUE CHAIN**

For decades, Bureau Veritas has performed assessments for food safety, quality, traceability and sustainability, certifying operators throughout the seafood supply chain, from ship owners to port infrastructure to retailers, against key regulations. Major food processing plants and retailers choose Bureau Veritas for its expertise, and ship owners benefit from a complete set of marine services.



# OUR REFERENCES

BUREAU VERITAS HAS MORE THAN 140 TECHNICAL DOCUMENTS AVAILABLE FOR DOWNLOAD. WE COMBINE THE VAST EXPERIENCE OF OUR ENGINEERS, GAINED THROUGH YEARS OF SERVICE IN THE MARINE INDUSTRY, WITH ADVANCED RESEARCH IN SHIP STRUCTURE, HYDRODYNAMICS, NEW TECHNOLOGIES AND ONBOARD SYSTEMS, TO SUPPORT THE DEVELOPMENT OF KEY CLASSIFICATION RULES.

## Rules

- NR467: Rules for the classification of steel ships
- NR600: Hull structure and arrangement for the classification of cargo ships less than 65 m and non-cargo ships less than 90 m
- NR216: Rules on materials and welding for the classification of marine units
- NR266: Requirements for survey of materials and equipment for the classification of ships and offshore units
- NR320: Certification scheme of materials and equipment for the classification of marine units
- NR533: Approval of service suppliers
- NR526: Rules for the classification of lifting appliances onboard ships and offshore units
- NR546: Hull in composite materials and plywood, material approval, design principles, construction and survey
- NR561: Hull in aluminium alloys, design principles, construction and survey
- NR529: Gas-fuelled ships
- NR670: Methyl/ethyl alcohol fuelled ships
- NR671: Ammonia-fuelled ships
- NR659: Rules on cyber security for the classification of marine units
- NR675: Additional service feature SMART
- NR387: Rules for the classification and certification of fish farms
- NR493: Classification of mooring systems for permanent offshore units
- NR528: Green passport

## Guidance notes

- NI409: Guidelines for corrosion protection of seawater ballast tanks and hold spaces
- NI538: Ballast water management systems
- NI547: Guidelines for fuel cell systems onboard commercial ships
- NI 673: Guidelines for Management of COVID-19 and Infectious Diseases





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#### WEBPAGES

<https://marine-offshore.bureauveritas.com/ship-classification/fishing-vessels>

<https://marine-offshore.bureauveritas.com/rule-notes-and-guidance-notes>

<https://certification.bureauveritas.com/needs/fishery-certification>

#### FOR MORE INFORMATION, CONTACT BUREAU VERITAS MARINE & OFFSHORE

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**BUREAU  
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Shaping a World of Trust