

# YOUR PARTNER FOR CRUISE SHIPS

SAFETY, SUSTAINABILITY  
AND COMPLIANCE



BUREAU VERITAS MARINE & OFFSHORE IS A LEADING PARTNER FOR CRUISE OPERATORS, OWNERS AND YARDS. OUR LONGSTANDING EXPERTISE IN CLASSIFICATION AND EXPERIENCE WORKING WITH DESIGNERS AND YARDS BRINGS OUR CLIENTS REASSURANCE THAT THEIR LARGE CRUISE SHIPS AND EXPEDITION CRUISE VESSELS ARE SAFE, COMPLIANT AND SUSTAINABLE.

WE ARE PART OF THE BUREAU VERITAS GROUP, A LEADING PROVIDER OF TESTING, INSPECTION AND CERTIFICATION SERVICES TO ALL GLOBAL ECONOMIC SECTORS, LAYING FOUNDATIONS OF RESPONSIBLE PROGRESS TO SHAPE A WORLD OF TRUST.

## SHAPING A BETTER MARITIME WORLD

### BV GROUP

**200**  
Years

**140**  
Countries

**80,000**  
People worldwide

**400,000**  
Clients

### BV MARINE & OFFSHORE

**2,650**  
Experts

**11,530**  
Ships in the classed fleet

**180**  
Survey centers

## CRUISING TOWARDS A SUSTAINABLE FUTURE

The pandemic interrupted what had previously been a steady growth trajectory for the cruise industry. Today, as travel restrictions ease and customers return, operators are keen to show that their cruise ships are safe and they are taking sanitary protocols seriously.

Bureau Veritas has been by our clients' side since the start of the pandemic. Our Restart Your Business service, and our Biorisk notation, support the industry with comprehensive methods to demonstrate a responsible approach, mitigate contamination onboard and protect passengers and crew.

However, despite being hit hard by the health crisis, the cruise industry is expected to bounce back, with further growth anticipated for expedition cruises. And in the large cruise ship sector, vessels slated for delivery over the next few years are designed to be bigger than ever. Class societies have an important role to play in ensuring that both new and in-service ships remain safe and compliant. We are instrumental in testing and validating environmental compliance and innovative Alternative Designs. In addition, class societies are supporting operators to manage increased cybersecurity risks arising from the rapid and growing digitalization of their industry.

**“WE BELIEVE  
THAT SUSTAINABILITY  
CONCERNS MUST BE  
TAKEN INTO ACCOUNT  
OVER THE ENTIRE  
LIFECYCLE**

## ENABLING THE TRANSITION

The biggest challenge currently facing the cruise industry, however, is the quest for sustainability. Many operators are already taking important steps towards achieving net carbon neutrality by 2050, for example implementing supply chain sustainability programs and waste-to-energy initiatives, and pursuing alternative fuels.

Bureau Veritas has developed industry-first rules for ammonia as fuel, and new rules for methanol and wind propulsion systems, with rules for hydrogen to follow. But sustainability goes beyond alternative fuels and regulations. At Bureau Veritas, we believe that sustainability concerns must be taken into account over the entire lifecycle of every asset, from concept through to decommissioning, recycling, and beyond. In our view we should follow a more holistic approach as an industry to shape a better, more sustainable, maritime world in which the ocean is rightly viewed as both a resource and as a stakeholder.

**Andreas Ullrich**  
Global Market Leader Passenger  
Ships & Ferries  
Bureau Veritas Marine & Offshore



# ADVANCED EXPERTISE IN EXPEDITION CRUISE

BUREAU VERITAS IS SUPPORTING SOPHISTICATED, SUSTAINABLE AND SAFE VESSELS THAT MEET CUSTOMERS' APPETITE FOR ADVENTURE, NATURE AND LUXURY.

## CLASSIFICATION EXPERTISE AND TRACK RECORD

Bureau Veritas is a classification partner of choice for leading expedition cruise ship operators, including PONANT, SunStone, Mystic Cruises and Scenic Cruises. With a strong track record in the expedition segment, we have

developed specific notations for ships sailing in polar regions, and even ships with ice breaking capability. We also offer an Underwater Radiated Noise (URN) notation. By assigning this notation, owners demonstrate their commitment to protect the marine ecosystem and at the same time enhance passenger experience and crew wellbeing.

## PIONEERING ALTERNATIVE PROPULSION

Bureau Veritas is also committed to supporting the further development of liquified natural gas (LNG) as a transition fuel by providing classification expertise. We leverage our cross-industry knowledge of LNG as fuel along with our experience in tank design to enable operators to envisage also the use of green bio-LNG and other gaseous green fuels.

Our teams have also been involved in projects to class expedition cruises ships and ferries that utilize electric energy when approaching ports, for example. This is demonstrated by assigning our Electric Hybrid notation. An update to our notation is to be released in 2022, joining our other forward-thinking Rules for ammonia and methanol as fuel.

## SUPPORTING ALIGNMENT WITH UN SDGs

To help ship owners communicate their sustainability efforts and provide proof of improvements, Bureau Veritas has developed two new notations that draw on the United Nations' Sustainable Development Goals. SUSTAINABLESHIP-1 recognizes ship owners that comply with a range of environmental regulations, while SUSTAINABLESHIP-2 is awarded to ship owners who go well beyond current statutory requirements to minimize their vessels' environmental footprints.

## TESTING SAFETY IN THE ARCTIC

In 2021, Bureau Veritas participated in the world's first international search and rescue exercise in a remote polar zone. Our teams tested and certified maritime safety equipment onboard PONANT's polar exploration vessel Le Commandant Charcot during a trial voyage to the North Pole. The exercise brought together experts, ship crew, and remote teams from Russia, Greenland, Iceland, Canada, the USA and Norway.

## ALTERNATIVE DESIGNS FOR INNOVATIVE CONCEPTS

Cruise vessels often include innovative Alternative Design features – like PONANT's underwater lounge – and require specific risk studies to ensure safety and compliance. Leveraging in-depth knowledge of the approval process and dedicated risk reliability teams, Bureau Veritas works with numerous clients to test and validate alternative designs, advising and conducting simulations from the design stage through sea trials and beyond.



"Le Commandant Charcot sets new standards in sustainability for cruise. Built to Polar Class 2, it features the first membrane tank with a hybrid dual fuel engine used on a cruise ship, and sophisticated ice routing software and an energy management system. Its first year of operation demonstrates strong efficiency, with fuel consumption below our estimates. Bureau Veritas was involved in the project from pre-design stage, through construction and safety tests in the Arctic. We felt supported throughout."

**Mathieu Petiteau,**  
Newbuilding and R&D director,  
Ponant



Read the full story

# PARTNER OF CHOICE FOR LARGE CRUISE SHIPS

BUREAU VERITAS' SPECIALIST EXPERTISE IN BIOSAFETY, TRACK RECORD IN CLASSING LARGE VESSELS AND EXPERIENCE IN HANDLING COMPLEX DESIGNS IS SUPPORTING THE SECTOR'S POST-PANDEMIC RECOVERY.

## SAFETY FOR MEGA CRUISE SHIPS

As ship size grows, new risks and challenges emerge. Bureau Veritas is the classification partner of choice for leading operators, for example classing MSC's new World Class series of low-emission cruise ships, the first of which is to be delivered in October 2022.

We also work with clients to test and validate Alternative Designs that offer levels of safety and environmental protection equivalent to IMO regulations. We advise and conduct simulations on topics such as fire safety relating to large vertical zones and lifeboats as well as evacuation analysis and smoke and fire propagation simulations. Our experienced team has in-depth knowledge of the approval process.



"We are very appreciative of the support and collaboration given to us across our global brands by BV and the verification we are receiving to underpin our framework of protocols for our resumption of sailing."

**Bill Burke,**  
Chief Maritime Officer, Carnival



Read the full story

## SCALING UP SUSTAINABILITY

Bureau Veritas is already playing a key role in the development of LNG as fuel for large cruise ships, with classification of vessels under construction. We are providing regulatory expertise and design assessment for the installation of Solid Oxide Fuel Cell technology as a demonstrator onboard the MSC World Europa, a low-emission cruise ship to be delivered in October 2022.

We are also working to support several upcoming new builds with modified designs. Looking even further forward, we are supporting the development of wind propulsion technologies, for example an R&D initiative by Chantiers de l'Atlantique named Ecorizon.

## SUPPORTING CRUISE POST-PANDEMIC

Bureau Veritas developed our Restart Your Business offer for the cruise sector in response to the COVID-19 pandemic, aiming to facilitate operators' return to cruising while protecting passengers and crew with strict safety protocols. The service can be used in conjunction with Bureau Veritas' Safeguard label to provide reassurance to passengers. Carnival, the world's largest leisure travel company, is one of many operators that have already taken advantage of this service, entrusting Bureau Veritas with health and safety services.

## REDUCING EMISSIONS IN PORTS

The European Commission's Fit for 55 program, intended to reduce the EU's total greenhouse gas emissions by 55%, stipulates that by 2030 all container and passenger ships must connect to shore power for port calls of over two hours. To support this transition, Bureau Veritas is providing certification services for the conversion of vessels to electric shore power.

### Some of our notations for cruise ships

- LNG fuel dual fuel
- Electric Hybrid
- Wind Powered Ship 1 or 2
- Polar Class
- BIORISK Managed / BIORISK Secured
- SUSTAINABLESHIP-1 or 2
- Underwater Radiated Noise
- Cyber Managed / Cyber Secured



**FOR MORE INFORMATION,  
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**Shaping a World of Trust**