

OPERATE IN THE **SUCCESS ZONE**



GLOBAL MARINE SERVICES

SGS

As the leader in environment, health and safety testing solutions for the maritime industry, SGS Global Marine Services offer the world's fleet an array of field services, laboratory analyses and consulting services to help customers navigate the increasingly regulated seas.

Since 2004, the SGS Global Marine Services group was formed as we analysed wastewater samples at the request of a cruise ship. Since then, there has been a great expansion in maritime environmental regulations, which, in turn, has driven the need for robust, reliable and accurate sampling and analyses. As the leading inspection, verification, testing, and certification organisation in the world – with more than 97,000 employees, over 2,600 offices globally and operations in more than 300 ports (and nearly every major port around the globe) – the group is uniquely suited to

address these needs. We offer water testing to help customers comply with standards set forth in the US EPA Vessel General Permit 2013 and the Maritime Labour Convention 2006 and address emerging issues (e.g. microplastics). Regarding air emissions, we conduct testing to help customers adapt to the changing regulations for sulphur emissions, and we are poised to address measures to limit greenhouse gas emissions. Our entrepreneurial spirit has guided us to invent and develop a sampling device to meet the upcoming D-2 Standard of the IMO Ballast

Water Convention, positioning SGS at the forefront of our industry. We seek to be epitomized by our passion, integrity, entrepreneurialism and our innovative spirit. These values guide us in all that we do and are the bedrock upon which our organisation is built.

WATER TESTING

Our water services will help your environmental management and ensure compliance with all relevant regulations for your industry.

+300 PORTS

WE OPERATE IN MORE THAN 300 PORTS AROUND THE WORLD.

AIR TESTING

We use high-technology air analyses and dust analytical services to determine what contaminants and micro-pollutants are present on your site.

**OUR GLOBAL
MARINE SERVICES**
HELP YOU MEET
REGULATIONS,
COMPLY WITH
STANDARDS
AND ENSURE
SAFE PASSAGE.

CLOSURE

INCIDENT

RISK

COMPLIANCE

SUCCESS ZONE

OUR SERVICES



**IMO BALLAST
WATER MANAGEMENT
MANAGEMENT
CONVENTION 2004**



**US VESSEL
GENERAL PERMIT 2013**



IMO MEPC.259(68)



**MARITIME LABOUR
CONVENTION 2006**



**EXHAUST GAS
CLEANING SYSTEMS
SAMPLING AND TESTING**



**ON-BOARD STACK
EMISSION
TESTING/MONITORING**



**INDOOR AIR QUALITY
(IAQ)**



**TESTING OF SOLID
BULK CARGO RESIDUES
ACCORDING TO MARPOL
REQUIREMENTS**



**MARITIME CO₂
MONITORING REPORTING
VERIFICATION SERVICES**



**MARINE FUEL
SERVICES**



**LUBE CONDITION
MONITORING**



**MARINE PLASTIC
LITTER**



OUR STRATEGIES ENSURE SAMPLING AND TESTING OF AS MANY REQUIRED PARAMETERS AS NECESSARY AT ONE STOP.

IMO BALLAST WATER MANAGEMENT CONVENTION 2004

Our field services include a sampling device to meet the upcoming D-2 Standard of the IMO Ballast Water Convention.

- Commissioning
- Ballast water sampling and testing to D-2 Standard

US VESSEL GENERAL PERMIT 2013

Our services for this sector include:

- Ballast water sampling and testing
- Bilge water sampling and testing
- Gray water sampling and testing
- Black water sampling and testing
- Scrubber washwater sampling and testing

MARITIME LABOUR CONVENTION 2006

Our services for this sector include:

- Potable water sampling and testing to WHO guidelines to ship sanitation
- Potable water sampling and testing to any flag state regulation

IMO MEPC.259(68)

Our mobile laboratories for water sampling are located at ports across the globe and supported with testing locations to ensure speedy results.

- Commissioning
- Scrubber wash water sampling and testing

ON-BOARD STACK EMISSION TESTING/MONITORING

Our global service provides confirmation that your vessels adhere to environmental requirements as set out in the Revised Marpol Annex VI regulations:

- Accredited measurements
- Checking all (emission) requirements
- Determining of flue gas parameters (O₂, CO, CO₂, NO_x, SO₂, C_xH_y) and dust
- Commissioning
- Certification and verification of continuous online measuring equipment
- Technical advice relating to emission-reducing techniques
- Measurements on site

EXHAUST GAS CLEANING SYSTEMS SAMPLING AND TESTING

The scope of SGS services reaches from pre-installation emission measurements to determine the dimension of the scrubber needed and commissioning supporting services to routine sampling and testing of required parameters:

- Continuous Emission Monitoring System (CEMS)
- Data management and data interpretation
- Measuring CO, CO₂, NO_x, SO₂, O₂, NH₃, dust and flow according to IMO revised Annex VI, CARB, US EPA and EN methods
- On-board testing, monitoring and reporting of particulate loading, particle size distribution and chemical analysis of particulate at the Exhaust Gas Cleaning Systems (EGCS) gas inlet and outlet
- Commissioning
- On-board EGCS sound level testing, monitoring and reporting
- On-board analysis of water samples
- Onshore analysis of water and fuel oil samples

ADDITIONAL MARINE SERVICES

A comprehensive range of marine services from SGS, including laboratory analyses and consulting services at every major port in the world.

INDOOR AIR QUALITY (IAQ)

The indoor air quality in your vessels directly affects the personal well-being and health of your workforce – and their productivity and morale. Ensuring you correctly regulate the climate, ventilation and humidity of the indoor environment is therefore essential.

- Inspection of heating and air-conditioning systems
- Measurements of allergens, ozone, asbestos and other hazardous substances
- Odor measurement and monitoring
- VOC screening
- Dust particle pollution
- Yeasts, molds and airborne microbiological contaminations

TESTING OF SOLID BULK CARGO RESIDUES ACCORDING TO MARPOL V REQUIREMENTS

Routine and high-tech laboratory testing:

- Testing of the organic/inorganic composition of all relevant components
- Bioaccumulation/biodegradation testing
- Transformation/dissolution testing (for metals and metal compounds only): to check the capacity of ions, which provide potential for ecotoxicity, to be released from the substance in water
- Bioavailability testing
- On-site sampling if needed

MARITIME CO₂ MONITORING REPORTING VERIFICATION SERVICES

SGS provides verification services to companies whose ships are affected by the EU Regulation on Maritime MRV.

MARINE FUEL SERVICES

When you are buying fuel, you need to know that the amount the ship receives is the quantity you purchased and that it is neither contaminated nor of a quality that could negatively impact the ship's fuel system, engine or environmental performance.

- Bunker quantity loading measurement
- Routine bunker quality analysis ISO 8217
- Specialist bunker analysis
- Waste disposal monitoring

LUBE CONDITION MONITORING

SGS offers a range of lubricant testing services, both routine and specialist, that will inform you about the performance, wear, additive content and presence of water and coolant in the engine of each of your marine vessels.

- Marine lubricant routine testing
- Specialist marine lubricant testing

MARINE PLASTIC LITTER

In recent years, there has been a global interest in plastic in the oceans, particularly regarding the "garbage patch" of marine debris in the North Pacific Ocean and microplastics found within the water column. Even though most plastic waste in the ocean is derived from land sources, the IMO will develop an action plan on marine plastic litter to address the fraction that emanates from ships.

- Quantification of the density and type of microplastics
- Inventory of plastic use on ships
- Analysis of drinking water (to reduce the use of individual plastic water bottles)

INVENTORY OF HAZARDOUS MATERIALS (IHM)

An Inventory of Hazardous Materials provides information on the hazardous materials on board a ship. The IHM report is a dynamic document and covers the full life cycle of a ship. The report is updated continuously – from the ship's construction through its active service life to its dismantling. The report indicates which materials – such as PCBs, mercury, leaded paint, asbestos and radioactive substances – are present, where they are stored and the volume carried.

SGS offers the following IHM services:

- Survey conform to Hong Kong Convention (HKC) and European Regulation on Ship Recycling (EU SRR)
- Sampling
- Analysis
- Maintenance of documentation during ship's life cycle

**SUPPORTING YOU
IN ALL POSSIBLE
WAYS WITH
OUR PRESENCE
IN ALL MAJOR
PORTS AROUND
THE WORLD,
OUR SERVICES
ARE AVAILABLE
WHENEVER AND
WHEREVER YOU
NEED THEM.**

OPERATE IN THE SUCCESS ZONE

OUR VALUE TO SOCIETY

Responding to global drivers, our services add significant value to our customers and stakeholders, so they can add exponential value to theirs. We do this by empowering smarter long-term decision-making throughout entire supply chains.

Present in every region around the globe, we provide innovative solutions for every part of the environmental industry. Our dedicated network of global and local offices is highly flexible and focused on meeting our customers' needs irrespective of the scale of the project.

We have won a number of awards for our own sustainability performance, as we try to lead by example and demonstrate our deeply-held belief that business success and creating value to society go hand-in-hand.

We can help you achieve the same double positive transformation, giving you a competitive advantage and helping you get, and stay, in the Success Zone.

**TO FIND OUT MORE ABOUT SGS
ENVIRONMENT, HEALTH AND SAFETY
SERVICES, CONTACT EHS@SGS.COM OR VISIT
WWW.SGS.COM/EN/ENVIRONMENT**

WWW.SGS.COM

WHEN YOU NEED TO BE SURE

