www.mitg.co.kr





Marine Independent Testing Group Co., Ltd.

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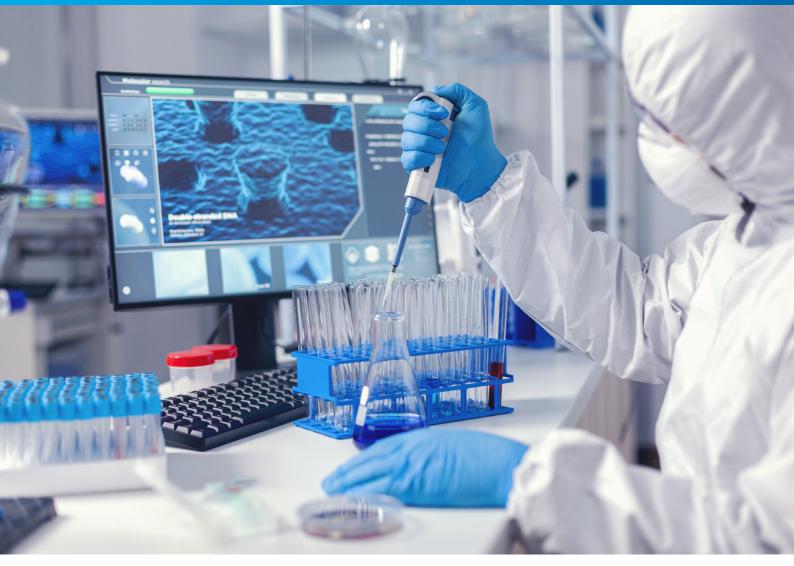
Korea's accredited testing laboratory providing testing facilities, expertise, relevant information and decision-making tools





MARINE INDEPENDENT TESTING GROUP

03



OVERVIEW

MITG is an international authorized laboratory established to solve major environmental problems facing the international marine industry.

The main business are ballast water management system testing and various water quality tests according to International maritime organization(IMO) and US coast guard(USCG) VGP regulations.

We are a laboratory with major classification certification, ISO/IEC 17025, and ISO 9001 certification, and provide high-quality services through professional technicians and specialized devices in each field. Through this, we promise to provide test analysis in accordance with international regulations. Thank you.

International regulations on service supply

D-2 Commissioning Test (IMO)

Ships must first obtain Type approval by relevant regulation and then pass the commissioning test under the Guidelines for ballast water sampling (G2). Details follow the regulations below.

Guideline for ballast water sampling(G2) MEPC173(58)

2020 Guidance on ballast water sampling and analysis for trial use in accordance with the BWM Convention and Guidelines (G2) BWM.2/Circ.42/Rev.2

2020 Guidance for the commissioning testing of ballast water management systems BWM.2/Circ.70/rev.1

Vessel General Permit (VGP) Test (USCG)

Ships bound for the United States must comply with the management requirements of ballast water according to the Vessel General Permit (Final 2013 VGP).

	Biological	Residual biocides
Initial monitoring	2 times per year	3 times in the first 10 discharge events (not to exceed a 180 day period)
Maintenance	1 times per year*	2 times per year

*For vessels with high quality data, if sampling results are below permit limits for two consecutive events, the vessel owner/operator may reduce monitoring to one time per year after the first year.



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Service supply

D-2 Commissioning Test (IMO)

1. ballast water

 \geq 50 µm and \geq 10 to < 50 µm size viable organisms, total living bacteria including Enterococci, Escherichia coli, Vibrio cholerae

2. ambient water

 \geq 50 µm and \geq 10 to < 50 µm size viable organisms, total living bacteria including Enterococci, Escherichia coli, Vibrio cholerae

Vessel General Permit (VGP) Test (USCG)

1. Ballast water

Analysis of concentrations of Indicator Organism (Total heterotrophic bacteria, Escherichia coli, Enterococci) and Residual Biocides and Biocide Derivative Monitoring

2. Gray water

Measurement of the Biochemical Oxygen Demand (BOD), fecal coliform, suspended solids, pH, and total residual chlorine

3. Bilge water

Inspection of whether bilgewater discharged comply with regulations with CFR 40 Parts 110, 116, 117 and 33 CFR §151.10

- 4. Exhaust Gas Scrubber Washwater (Exhaust gas cleaning system, EGCS)
 Analysis of PAH(Polycyclic Aromatic Hydrocarbons) concentration and turbidity, pH
- * We can provide additional information (temperature, salinity, etc.) if the customer wants.



Certification

















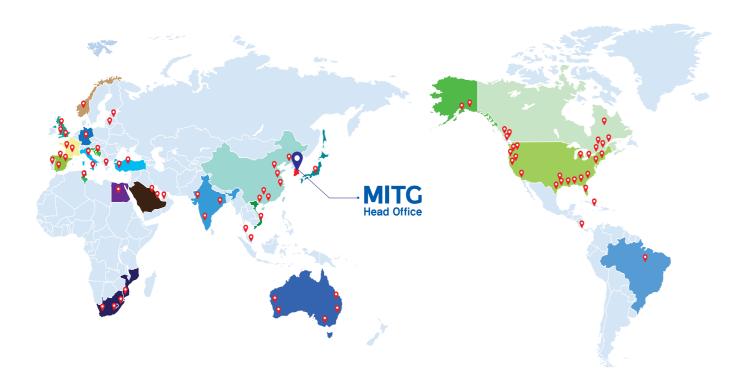








MARINE INDEPENDENT TESTING GROUP 07



World-Wide Service Network

Technology services from MITG agents in major cities around the world provide quick supply of D-2 commissioning and VGP tests.

We are providing services more conveniently and quickly based on the currently established network.



Procedures for providing service

D-2 Commissioning Test

- •Owner / Operator of Vessel
- •BWMS Manufacturer
- Vessel Schedule / Test Locations
- •Type of Vessel / Type of BWMS
- ·Ballasting Date
- Contact Information

Parameters of Water Quality

- •Water Temperature, pH
- •Salinity, Turbidity, UV transmittance
- •Etc.

Biological Parameter

- •≥50 µm size Organisms
- •≥10, < 50 µm size Organisms



Test Request from Client

Test Information (provided to MITG)

Embark / Onboard Sampling

Analysis
On board / Laboratory

Reporting (QA/QC Verification)

Issuing Report (to Client)

USCG VGP Test

- Owner / Operator of Vessel
- •BWMS Manufacturer
- Vessel Schedule / Test Locations
- Type of Vessel / Type of BWMS
- •Ballasting Date
- Contact Information

Microorganisms

- Heterotrophic Bacteria
- •E. coli, Enterococci

Biocides

- Residual biocides
- Biocide derivative



