THE BALLAST WATER CONVENTION

Q1: WHAT IS BALLAST WATER?
A: Ballast water is normally sea water of variable quantity and location used to keep the ships trim, draught, stability and structural loading within safe limits as the distribution of cargo and other liquids takes place during normal ship operations.

Q2: WHAT IS IN BALLAST WATER?
A: At any one time ballast water can naturally contain an estimated 7000 different species of organisms comprising of plankton (microscopic plants and animals), bacteria and viruses.

Q3: HOW MUCH BALLAST WATER IS TRANSFERRED BY SHIPPING EACH YEAR?
A: Over 80% of the world’s commodities are being moved by shipping, calling for speedy and efficient vessel movement. It is estimated that approximately 7 billion tons of ballast water is transferred globally each year.

Q4: WHAT AFFECT DOES BALLAST WATER HAVE ON THE ENVIRONMENT?
A: The vast majority of marine species carried in ballast water do not survive the ships journey. However some species do survive and through the discharge of ballast water these are inadvertently introduced into new ecosystems. Once discharged some species can withstand a wide range of environmental conditions and may not have natural predators. In such cases these organisms can become invasive species causing a change in the ecosystem balance. Once such changes have occurred the effects are irreversible.

Q5: WHAT REGULATIONS APPLY TO BALLAST WATER DISCHARGES?
A: The legislative framework includes more than one regulation, an international regulation known as the ‘IMO Ballast Water Convention (see below) and any number of local and national regulations, for example those in the United States, the Baltic and the Arabian Gulf.

Q6: WHAT IS THE IMO BALLAST WATER CONVENTION?
A: The Ballast Water Convention was introduced by the International Maritime Organisation in 2004 to address the Control and Management of Ships’ Ballast Water and Sediments

Q7: WHAT REGULATIONS ARE APPLICABLE IN THE UNITED STATES (US)?
A: In the US ballast water discharges are regulated by two federal agencies, the United States Coast Guard (USCG) and the United States Environmental Protection Agency (USEPA). All discharges are regulated via the Vessel General Permit (VGP).

Q8: WHAT TYPES OF SHIPS ARE COVERED BY THE BALLAST WATER REGULATIONS?
A: The IMO Ballast Water Convention applies to all sea going ships greater than 400 gross registered tonnes (GRT) that use ballast water. In the US the regulations apply to all ships greater than 300 GRT.

...EFFECTS OF BALLAST WATER IRREVERSIBLE.
Q9: WHY HAVE THE IMO AND US ADOPTED BALLAST WATER REGULATIONS?
A: The IMO introduced the Ballast Water Convention in 2004. The US issued notice for a new proposed rule making (NPRM) in 2009. Both of these initiatives were introduced to eliminate the damaging environmental effects resulting from the discharge of ballast water from ships.

Q10: WHAT DOES THE IMO BALLAST WATER CONVENTION REQUIRE?
A: The IMO Ballast Water Convention ultimately requires ships to fit a ballast water treatment system conforming to Regulation D2 discharge performance standard. As an interim measure the Ballast Water Convention requires ships to manage their ballast water in accordance with Regulation D1.

Q11: WHAT IS IMO REGULATION D1?
A: IMO Regulation D1 is a procedure governing the frequent change of ballast water during normal ship operations. This procedure is often referred to as Ballast Water Exchange, and is an interim measure enforced to minimise the transport of invasive species. Regulation D1 requires ballast water carried by the ship to be exchanged three times during its voyage, to achieve 95% or better volumetric exchange. For many ships Ballast Water Exchange becomes an operational inconvenience having both time and financial impact. However, more importantly Ballast Water Exchange introduces operational risk that may lead to a compromise of the ships structural integrity and safety of the crew.

Q12: WHAT IS IMO REGULATION D2?
A: IMO Regulation D2 is a standard governing the treatment of ballast water at uptake to ensure that strict ballast water quality standards are met at the point of discharge. A Ballast Water Treatment system conforming to Regulation D2 may be awarded Type Approved status.

Q13: WHAT IMO REGULATION DO I NEED TO MEET AND BY WHEN?
A: All ships are expected to undertake Ballast Water Exchange in accordance with IMO Regulation D1 as an interim measure and prior to installation of an approved Ballast Water Treatment system in accordance with the IMO Regulation D2. The Ballast Water Convention requires a ship to meet IMO Regulations D1/D2 according to the following implementation plan:

<table>
<thead>
<tr>
<th>Keel Laying</th>
<th>BW Volume</th>
<th>'09</th>
<th>'10</th>
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<th>'12</th>
<th>'13</th>
<th>'14</th>
<th>'15</th>
<th>'16</th>
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<tbody>
<tr>
<td>Existing Vessels</td>
<td>&gt; 2009</td>
<td>&lt; 1500</td>
<td>D1 / D2</td>
<td>D2</td>
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<td>&gt; 2009</td>
<td>1500 - 5000</td>
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<td>New Vessels</td>
<td>2009 - 2011</td>
<td>&lt; 1500</td>
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</table>

Q14: WHEN DOES THE BALLAST WATER CONVENTION COME INTO FORCE?
A: The IMO Ballast Water Convention will be considered ratified when a minimum of 30 IMO member states representing no less than 35% of world gross registered tonnage sign up to the convention. The IMO Ballast Water Convention will come into force 12 months after ratification.
Q15: WHO HAS RATIFIED THE IMO BALLAST WATER CONVENTION SO FAR?
A: The current status of the IMO Ballast Water Convention and other useful information can be found on the Wärtsilä website.

Q16: WHEN MIGHT THE BALLAST WATER CONVENTION COME INTO FORCE?
A: It is widely anticipated that ratification will occur within the next 12 months and become legally enforceable 12 months later.

Q17: WHAT HAPPENS WHEN THE BALLAST WATER CONVENTION COMES INTO FORCE?
A: Ships must comply with IMO Regulation D2 and operate an approved Ballast Water Treatment system as defined in the implementation plan contained within the Ballast Water Convention.

Q18: HOW WILL THE BALLAST WATER CONVENTION BE ENFORCED?
A: Enforcement of the Ballast Water Convention is still under discussion by the IMO. However, the Bulk Liquids and Gases Sub-committee has outlined an enforcement methodology that includes:

- Proof of equipment certification (type approval)
- Verification of the Ballast Water Treatment system condition and maintenance records
- Inspection of the ships ballast water management plan and associated data logs

Ballast water discharge sampling to prove compliance with Regulation D2 is only expected in extreme cases where the Port State Control is unable to verify the above information and/or have cause to invoke verification sampling.

Q19: ARE THE MAIN FEATURES OF AN IMO IMPLEMENTATION DIFFERENT TO THE US?
A:

- The ballast water discharge standard (BWDS) adopted by the US is currently identical to the IMO D2 discharge standard (see reference to the IMO D2 discharge standard on the Wärtsilä website).

- The route to US certification is defined in more detail through USCG documentation which includes a BWMS test method defined in accordance with the USEPA’s Equipment Testing Validation (ETV) protocol. ETV testing must be carried out at a US accredited independent laboratory (IL).

- The USCG regulation makes provision for the use of IMO Type Approved systems from other flag administrations. The scheme is referred to as the Alternative Management Systems (AMS). The AMS allows for the use of such systems on Ships operating in US waters, for a period no longer than 5 years from the date that the ship would otherwise have to comply with the BWDS.

- According to the USCG, all new vessels constructed on or after 1st Dec 2013 shall comply on delivery. All existing ships with ballast capacity 1,500 and 5,000m³ should fit the BWMS at the first schedule docking after 1st Jan 2014. Any ship with ballast capacity greater than 5,000m³ should fit BWMS at the first dry docking after 1st Jan 2016.

- The US BWDS became effective on 21st June 2012 and will be enforced by the USCG, exact details yet to be released.

- All vessels operating in US waters should comply with the Vessel General Permit (VGP).
BALLAST WATER MANAGEMENT SYSTEMS

Q20: WHAT BALLAST WATER TREATMENT TECHNOLOGY OPTIONS ARE AVAILABLE?
A: A number of Ballast Water Treatment technology options are currently available including one or more of the processes listed below. With the exception of a small number of systems, all use a 2-stage approach involving mechanical separation (1st stage) followed by physical/chemical treatment (2nd stage). It is noted that some of the available systems use a combination or two or more physical and/or chemical treatment processes.

<table>
<thead>
<tr>
<th>MECHANICAL</th>
<th>PHYSICAL</th>
<th>CHEMICAL</th>
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<tbody>
<tr>
<td>Cyclonic Separation</td>
<td>Ultra Sound</td>
<td>Electro-chlorination</td>
</tr>
<tr>
<td>Filtration</td>
<td>Cavitation</td>
<td>Ozonation</td>
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<td></td>
<td>Ultra Violet</td>
<td>Chlorination</td>
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<td></td>
<td>Heat</td>
<td>Chlorine Dioxide</td>
</tr>
<tr>
<td></td>
<td>De-oxygenation</td>
<td>Advanced Oxidation</td>
</tr>
<tr>
<td></td>
<td>Coagulation</td>
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</tbody>
</table>

Q21: WHAT ARE ACTIVE SUBSTANCES?
A: According to the IMO definition, an Active Substance is a substance or organism, including a virus or fungus that has a specific action on or against harmful aquatic organisms and pathogens. When referring to the Ballast Water Convention, Ballast Water Treatment systems that involve any form of chemical treatment are therefore considered ‘Active Substance’ approaches. By contrast, treatment systems that use only physical treatment are considered ‘no Active Substance’ approaches.

Q22: HOW IS A BALLAST WATER TREATMENT SYSTEM SELECTED?
A: Ballast Water Treatment system selection is very much dictated by ship owner/operator. There are a number of factors including but not limited to:

- Capital cost (CAPEX) and operating cost (OPEX)
- Ship operating profile and associated ballast activities
- Ballast water pump size/rate and Ballast Water Treatment capacity requirements
- Ship integration constraints, for e.g. space and power requirements
- System durability and maintenance requirements
- Ease/cost of installation
- Supplier credibility

Q23: WHAT IMPACT DOES HOLDING TIME HAVE ON BALLAST WATER TREATMENT AND WILL IT RESTRICT THE NUMBER OF SYSTEM OPTIONS THAT CAN BE CONSIDERED?
A: Holding time is system specific requirement. Depending on the specific system technology used, holding time can vary from seconds to days and may affect the time required between ballasting and de-ballasting operations to ensure effective treatment. As a result some treatment systems may be unsuitable for ships subject to frequent ballasting/de-ballasting.
Q24: WHAT DATA SHOULD A BALLAST WATER MANAGEMENT SYSTEM RECORD?
A: Regulation B-2 of the Ballast Water Convention states that the ship must hold data in a ballast water record book. This can be either in a manual or electronic format, either standalone or integrated into another system or record book. Recorded data should include, but is not limited to, the following information:

- When ballast is taken onboard, volume, date, time and geographical location
- Movement of ballast water for on board ballast water management purposes
- When ballast is discharged to sea, volume, date, time and geographical location
- When ballast is discharged to a reception facility, volume, date, time and location
- Accidental or other exceptional uptake or discharges of ballast water

Q25: HOW LONG DOES BALLASTING DATA NEED TO BE KEPT?
A: Entries into the ballast water record book should be maintained onboard for a period of 2 years after the date of entry and thereafter kept in the company’s control for a further 3 years.

AQUARIUS® BALLAST WATER MANAGEMENT SYSTEMS

Q26: HOW WAS THE BALLAST WATER MANAGEMENT SYSTEM RANGE DEVELOPED?
A: In recognising that no one solution will be suitable across all ship types, sizes and environmental conditions, Hamworthy Water Systems Limited developed the AQUARIUS® range of ballast water management systems, all conforming to the IMO Regulation D2. Wärtsilä acquired the AQUARIUS® range as part of the acquisition of Hamworthy plc in January 2012.

Q27: WHAT TECHNOLOGY OPTIONS ARE AVAILABLE WITHIN THE AQUARIUS® PRODUCT RANGE?
A: The AQUARIUS® product range currently comprises of:

- AQUARIUS® UV – a 2-stage approach involving filtration and UV irradiation
- AQUARIUS® EC – a 2-stage approach involving filtration and Electro-chlorination

Q28: WHAT ARE THE RATED CAPACITIES OF THE AQUARIUS® PRODUCT RANGE?
A: The AQUARIUS® systems are available in a range of capacities to 6000m³/hr or more.

Q29: CAN THE AQUARIUS® SYSTEMS BE INSTALLED ON NEW BUILD AND RETROFIT PROJECTS?
A: Yes, modular construction, flexible up-scaling and efficient use of space and power ensures easy integration with ship systems for both new build and retrofit projects.

Q30: ARE THE AQUARIUS® SYSTEMS RESTRICTED BY EX REQUIREMENTS?
A: Currently the equipment is available for safe area installation only. However, explosion proof options will be considered in due course.

Q31: DO WÄRTSILÄ HAVE EXPERIENCE OF INSTALLING AN AQUARIUS® SYSTEM?
A: Wärtsilä have installed two AQUARIUS® systems; an AQUARIUS® UV system on board a small LPG carrier; and an AQUARIUS® EC system on board a 13,000DWT Ro-Ro Carrier.
Q32: HOW LONG DOES IT TAKE TO INSTALL AN AQUARIUS® SYSTEM?
A: For a ‘Ballast ready’ ship, the installation process may take only 2 to 3 weeks. For a ship requiring preparatory work an installation could take up to 8 weeks.

Q33: DOES THE VESSEL NEED TO BE DRY DOCKED FOR INSTALLATION OF THE AQUARIUS® SYSTEM?
A: It is not a requirement to dry dock the ship for installation of the AQUARIUS® system. However, an installation planned in conjunction with the normal ship dry dock cycle would be a sensible and cost effective approach.

Q34: HOW DOES INSTALLATION OF AN AQUARIUS® SYSTEM IMPACT SHIP OPERATIONS?
A: No real impact, as the AQUARIUS® systems are installed in a by-pass loop off the main ballast line and are integrated with the ship’s main control system. Some ship down-time may be necessary if modifications to the ballast pipe work are required.

Q35: IN WHAT FORM CAN AN AQUARIUS® SYSTEM BE SUPPLIED?
A: An AQUARIUS® system can be supplied in a number of forms:
- Standard modular component supply
- Fully skid mounted supply
- Fully integrated containerised supply (plug and play)

Q36: WHICH AQUARIUS® SYSTEM SHOULD I CHOOSE?
A: Wärtsilä will assist the owners/operator in making a suitable technology selection. The selection process will involve a full evaluation of the ship operational profile, layout and any owner and/or ship specific requirements.

Q37: IS AN AQUARIUS® SYSTEM AFFECTED BY WATER TEMPERATURE AND SALINITY?
A: No. The AQUARIUS® systems are specifically designed to operate in all environmental conditions normally encountered by a ship operating globally.

Q38: CAN AQUARIUS® SYSTEMS OPERATE UNDER GRAVITY DE-BALLASTING CONDITIONS?
A: Yes, provided that the system design flow rate is maintained.

Q39: WHAT IS THE PRESSURE DROP ACROSS AN AQUARIUS® SYSTEM?
A: The AQUARIUS® system pressure drop ranges from 0.3barg to 0.8barg. The maximum pressure drop of 0.8barg occurs only periodically and at an instant in time when back-wash cleaning of the filter screen is invoked.

...NO ONE TECHNOLOGY FITS ALL.
AQUARIUS® EC SYSTEM

Q40: What is the basic operating principle of the AQUARIUS® EC system?
A: Ballast water treatment with an AQUARIUS® EC system is achieved through a simple and efficient two stage process. Upon uptake the sea water is first passed through a back washing filter (1st Stage) and then the filtered sea water passes through a static mixer, where the disinfectant generated from the side stream electrolysis unit (2nd stage) is injected to ensure a maximum level of 10ppm in the treated ballast water. Upon discharge, ballast water with disinfectant levels in excess of the MARPOL limits are neutralised using sodium bisulfite to ensure environmental compliance.

Q41: How is organism re-growth in the ballast tanks prevented during voyage, ensuring D-2 discharge limits are met?
A: After passing through the AQUARIUS® EC system, treated water enters the ballast tank with a residual amount of disinfectant, which ensures that organism re-growth in the tank is prevented during the voyage.

Q42: Does the AQUARIUS® EC system use an Active Substance?
A: Yes, the AQUARIUS® EC system uses electrolysis to produce a disinfectant (active substance) from salt in the sea water.

Q43: What is the Approval status of the AQUARIUS® EC system?
A: Application for BASIC IMO approval of the AQUARIUS® EC system was submitted to IMO via the Dutch Administration (ILT). The BASIC IMO has been reviewed by GESAMP who will make their recommendations to MEPC64.

Q44: When will AQUARIUS® EC system be granted Type Approval?
A: It is anticipated that the AQUARIUS® EC system will gain IMO Final Approval at MEPC65. Type Approval will follow shortly thereafter.

Q45: Has the AQUARIUS® EC system completed all required land based testing?
A: Full scale land based testing was completed at the NIOZ test facility in Holland in 2011. Testing was performed in accordance with G8 guidelines and complying with IMO Regulation D2. Toxicity assessments in accordance with the G9 guidelines were completed in parallel to the land based testing.

Q46: Has the AQUARIUS® EC system completed all required ship board testing?
A: An AQUARIUS® EC system was installed onboard a ship in August 2011 and testing in accordance with G8 guidelines is underway for completion in 2012.
Q47: Does the use of electrolysis within the AQUARIUS® EC system have any limitation?
A: The electrolysis process is generally limited by both water temperature and salinity in order to achieve optimum performance. In the case of the AQUARIUS® EC system water temperature should be 10°C or higher and salinity 15PSU or higher.

Q48: How does the AQUARIUS® EC system cope with water temperature below 10°C?
A: Where the ship is operating in waters of temperature lower than 10°C, a heat exchanger is used to ensure correct water temperature. The heat exchanger utilises waste heat from a suitable on board source.

Q49: How does the AQUARIUS® EC system cope with salinity levels below 15PSU?
A: Where the ship is operating in waters with salinity less than 15PSU, electrolysis feed water is taken from a dedicated onboard source (e.g. aft peak tank) water with salinity levels higher than 15PSU.

Q50: What is the impact of an AQUARIUS® EC system on corrosion and ballast tank coatings?
A: The AQUARIUS® EC system monitors the level of disinfectant to ensure that treated water enters the ballast tank with a disinfectant level no higher than 10ppm. There is no evidence that levels at or below 10ppm have any detrimental impact on materials, corrosion and tank coatings. Evaluation testing is being conducted in accordance with MEPC 59/2/16.

Q51: HOW DOES AN AQUARIUS® EC SYSTEM HANDLE HYDROGEN AS A BY-PRODUCT OF THE ELECTROLYSIS PROCESS?
A: The system includes a buffer/de-gassing tank where hydrogen is diluted and force vented to atmosphere.

Q52: ARE ANY HARMFUL CHEMICALS PRODUCED BY ELECTROLYSIS?
A: The environmental impact of chemicals produced during electrolysis has been assessed against the requirements of the G9 protocol and found to be within acceptable limits. Testing for chronic and acute toxicity has verified the environmental acceptability of the discharge.

AQUARIUS® EC SYSTEM

BUFFER

DEGASSING TANK

NEUTRALISATION

AIR BLOWER

CHLORINATORS

FILTER

MIXER
AQUARIUS® UV SYSTEM

Q53: WHAT IS THE BASIC OPERATING PRINCIPLE OF THE AQUARIUS® UV SYSTEM?
A: Ballast water treatment with the AQUARIUS® UV system is achieved through a simple and efficient two stage process. Upon uptake the sea water is first passed through a back washing filter (1st Stage). The filtered sea water then passes through a UV chamber (2nd stage) where ultra-violet light is used to disinfect the water prior to entering the ballast tank. Upon discharge, water from the ballast tanks passes through the UV chamber only for a second time.

Q54: WHAT TYPE OF UV LAMPS ARE UTILISED?
A: The system utilises medium pressure mercury discharge UV lamps. The polychromatic nature of the medium pressure lamp provides an extended germicidal spectrum unlike the low pressure monochromatic lamps which utilises a single wavelength (254nm).
Q55: HOW IS ORGANISM RE-GROWTH PREVENTED DURING VOYAGE?
A: Ballast water is UV treated a second time during de-ballasting to ensure maximum disinfection.

Q56: ARE ANY HARMFUL CHEMICALS PRODUCED BY UV TREATMENT?
A: The environmental impact of chemicals produced during UV treatment has been assessed against the requirements of the G9 protocol. Testing verified that UV treatment produced no Active Substances. Testing for acute toxicity has verified the environmental acceptability of the discharge.

Q57: WHEN WILL THE AQUARIUS® UV SYSTEM BE GRANTED TYPE APPROVAL?
A: Application for Type Approval of the AQUARIUS® UV system is planned for 2012.

Q58: HAS THE AQUARIUS® UV SYSTEM COMPLETED ALL REQUIRED LAND BASED TESTING?
A: Full scale land based testing was completed at the NIOZ test facility in Holland in 2011. Testing was performed in accordance with G8 guidelines and complying with IMO Regulation D2.

Q59: Has the AQUARIUS® UV system completed all required ship board testing?
A: An AQUARIUS® UV system was installed onboard a ship in July 2011 and testing in accordance with G8 guidelines was completed in April 2012.

Q60: Does the AQUARIUS® UV system use an Active Substance?
A: No.
SHIP OPERATIONAL AND BWMS SELECTION CONSIDERATIONS

Q61: HOW DO I SELECT MY BWMS?
A: Wärtsilä aim to form a full partnership with our customers and through the technology review process, provide assistance with the selection of BWMS most appropriate for the particular ship or for fleet wide application.

Q62: ARE THERE ANY SHIP TYPES OR SIZES UNSUITABLE FOR YOUR BWMS?
A: Having a choice of technology maximises the spectrum of opportunities for application of the Wärtsilä BWMS.

Q63: WHICH BWMS TECHNOLOGY SOLUTION IS MORE COST EFFECTIVE?
A: The true answer to this question lies in the detail of the application being considered and requires a full appreciation of the various ship and operational factors. However, UV BWMS solution will provide more cost effective installations for small to medium sized ballast flow rates, for example for flows up to 1,000m³/hr. For flow rates higher than 1,000m³/hr EC BWMS provide a cost effective scaling option.

Q64: ARE THERE ANY OPERATIONAL REQUIREMENTS THAT LIMIT THE APPLICATION OF YOUR BWMS?
A: The choice of technology available through Wärtsilä maximises the range of operational scenarios that can be addressed. For example:
   a) BWMS can be applied for installation in hazardous areas (EX).
   b) BWMS suitable for use when stripping ballast tanks.
   c) Use of the BWMS during gravity ballasting and de-ballasting.

Q65: CAN YOU TREAT BALLAST WATER IN TANKS NOT LINKED TO THE MAIN BALLAST SYSTEM (I.E. AFT PEAK TANK)?
A: Yes, Wärtsilä have engineered solutions using single or multiple BWMS installations employing UV, EC or a hybrid solution.

Q66: CAN YOU PROVIDE A CONTAINERISED BWMS?
A: Yes fully containerised solutions can be provided to meet the requirements of any given project. This may include the supply of more than one container in a ‘plug and play’ configuration designed to fit space constraints.
ABOUT WÄRTSILÄ

Q67: WHO ARE WÄRTSILÄ AND WHAT DO WE DO?
A: Wärtsilä is a global leader in complete lifecycle power solutions for the marine and energy markets. By emphasising technological innovation and total efficiency, Wärtsilä maximises the environmental and economic performance of the vessels and power plants of its customers.

Q68: WHAT EXPERIENCE DOES WÄRTSILÄ HAVE WITH MARINE EQUIPMENT SUPPLY?
A: Wärtsilä has operations in nearly 170 locations in 70 countries around the world and commands a strong position in all main marine segments as a supplier of highly rated ship machinery and systems. Our strengths are our technological leadership, an integrated product and service offering, our close and long-standing customer relationships, and our unparalleled global presence. Our production and supply chain management serves both our end markets, and we constantly seek ways to maintain cost efficiency and high quality – often in co-operation with leading industrial partners in our key growth markets.

Q69. HOW CAN WÄRTSILÄ ASSIST IN SELECTING A SUITABLE BALLAST WATER TREATMENT SOLUTION?
A: Wärtsilä have applied its full range of marine design, manufacturing and installation expertise to introduce the AQUARIUS® range of ballast water management systems (BWMS). Recognising that no one BWMS solution will be suitable across all ship types, sizes and environmental conditions, AQUARIUS® systems provide a greater choice of technology from a single source. By utilising Wärtsilä know-how, system selection and installation will be matched to the requirements of a particular ship and its operating profile.

Q70. HOW DO I INSTALL AN AQUARIUS® SYSTEM?
A: Wärtsilä can provide equipment only or the full range of engineering and project management support to deliver a full TURNKEY solution.

Q71. HOW CAN WÄRTSILÄ ASSIST FOLLOWING INSTALLATION OF AN AQUARIUS® SYSTEM?
A: Working in partnership with our customers, Wärtsilä will provide worldwide technical and service support on a 24/7 basis. Using a well established global network Wärtsilä will ensure that your AQUARIUS® system continues to operate safely and effectively. With a long term commitment to innovation and continuous improvement, Wärtsilä will ensure that your ship continues to meet its operational and environmental obligations.
Wärtsilä is a global leader in complete lifecycle power solutions for the marine and energy markets. By emphasising technological innovation and total efficiency, Wärtsilä maximises the environmental and economic performance of the vessels and power plants of its customers. Wärtsilä is listed on the NASDAQ OMX Helsinki, Finland.