Environment

Environmental management

In keeping with our pioneering tradition, ZIM was one of the world's first shipping companies to receive the **ISO 14001:2004 Standard certification** for its company-owned fleet. The standard specifies the requirements for an **Environmental Management System (EMS)**, enabling us to develop and implement a policy and objectives which take into account legal and other requirements as well as information about significant environmental issues.

Our Certificate of EMS Registration has been assessed, certified and issued by an independent third party (ClassNK).

ZIM is ISO 14001:2015 certified, Lastly audited in September 2019 by ClassNK.

Our fleet complies with all mandatory standards and abides by all relevant treaties for the prevention of marine pollution, including IMO resolutions, the **International Convention for the Prevention of Pollution from Ships (MARPOL), the International Convention for the Safety of Life at Sea (SOLAS), the International Maritime Dangerous Goods (IMDG) code,** flag administration, ballast water management, the **Shipboard Oil Pollution Emergency Plan (SOPEP)** regarding oil spills, and other standards regarding sewage, garbage and air pollution, as well as all national, regional and local regulations.

As a further demonstration of our commitment to eco-friendly operations, we participate in the **World Ports Climate Initiative (WPCI)** and register our eligible vessels under the **Environmental Ship Index (ESI)**.

Since March 2018, we have been voluntarily and gradually replacing our global car fleet by eco-friendly hybrid or electric models.

Read more here.

Reduction of environmental effect

We strive to reduce our impact on the environment and prevent pollution of maritime environments due to our activities as much as possible. We abide by the MARPOL regulations for preventing pollution from vessels by carrying out the following practices:

- Ballast water management
- Strict avoidance of oil discharge into the sea, including spills over the deck
- implementation of SOPEP (Shipboard Oil Pollution Emergency Plan) onboard vessels
- Replacing mineral oil lubricants with Environmentally Acceptable Lubricants (EAL) for wire ropes and deck equipment, as well as the stern tube and bow thrusters
- Sewage treatment
- Garbage collection and disposal
- Air pollution management, including the control of ozone-depleting substances
- Management of local pollution, including dust/ noise/odor emissions and accidental spills, is handled onboard all our vessels daily, as per each vessel's SOP (Shipboard Operations Procedures)
- All crews on our vessels are equipped with active protective gear to minimize noise exposure, as well as dust masks when required

Read more here.

Emissions

Since 2013, ZIM has been a member of the **Clean Cargo Working Group (CCWG),** a global shipping industry initiative dedicated to improving the environmental performance of marine container transport through ongoing measurement, evaluation, and reporting. Every ZIM vessel's CO2 emissions, NOx and SOx emissions and use of oils, fuel and sewage treatment facilities are continually checked, analyzed and reported to the CCWG and verified by a third party, the Standards Institute of Israel. We strive to reduce emissions due to inland cargo transportation by selecting rail/barge transportation whenever reliably available.

All ships in our fleet, both owned and chartered, use low-sulfur fuels to reduce the environmental impact of their main engines.

The (fleet) average CO2 Emission Factor (gCO2/TEU-km) and average Sulphur Emission Factor (gSOx/TEU-km) for 2019 improved by 7% and 13% respectively compared with the same averages for 2018.

The improvement in the (fleet) average Sulphur Emission Factor was achieved mainly by increasing the use of marine fuels with less than 0.1% Sulphur content for our vessels.

Between 2012 and 2019 we reduced our fleet's average CO2 emission per TEU (gCO2/TEU-km) factor by 54%.

ZIM's targets for reduction of emissions:

- To improve the fleet's average environmental CO2 emission per TEU (gCO2 /TEU-km) every year by 2%.
- To aim for a 50% reduction in our Fleet's Average CO2 Emission Factor by 2025, compared to 2008.

Read more here.

EcoData Emissions Calculator

As part of our ongoing efforts to reduce our operations environmental impact, we encourage all our customers and suppliers to achieve and maintain high standards of sustainability. For this reason, we provide our customers with a convenient way to monitor the ecological impact of their shipments. The EcoData Emissions Calculator is a user-friendly online tool that can be found on our website. It provides CO2 and SOx emissions estimates based on the CCWG methodologies, which are widely recognized in the industry. In this way, our customers benefit from greater transparency relating to all aspects of the shipping process.

Read more here.

The new 2020 Fuel regulations

The new fuel regulations, known as "2020 Sulphur Cap", will require all marine carriers to use low-sulfur fuel (up to 0.5% sulfur content) from January 1st, 2020. The new regulations introduced by the International Maritime Organization (IMO) are part of several international initiatives aimed at reducing marine pollution and emissions. The whole shipping sector will be affected by the new regulations, and will be obliged to comply and to significantly reduce emissions on the high seas and in coastal areas. ZIM is well-prepared to meet the new requirements and fully supports the new regulations, which will contribute to the health of our oceans and the quality of the environment.

Read more here.

Energy & fuel consumption

We strictly monitor fuel consumption for all operated vessels, both owned and chartered, on a regular basis. Our main organizational fuel efficiency KPI is “Fuel Consumption per 1,000 miles per TEU”, which reflects the amount of fuel a vessel consumes in order to transport one TEU for 1,000 nautical miles. This indicator enables us to measure our fuel consumption efficiency regardless of vessel size and/or potential changes in commercial activity.

Read more here.

Energy Consumption Awareness at ZIM

We honor our commitment to protect people and the environment by tracking and analyzing energy consumption on vessels via best practice methods in order to improve energy efficiency and reduce both fuel consumption and CO2 emissions.

We are able to monitor our entire fleet in real time from the Global Operation Center (GOC), located in HQ in Haifa, Israel. The GOC monitors the status and position of all active ships, relevant weather conditions and currents, and effectivity of port operation, among other data. Based on information gathered, the GOC assists operational ships with decisions concerning route and speed adjustment in real time. Moreover, it reveals deviations in vessel performance which may lead to inefficiencies.

Water Consumption & Usage

We actively promote the recycling of fresh water and reuse of treated wastewater. All water used in headquarters is recycled by the local water authority and reused for irrigation purposes. For example, our headquarters uses the condensation generated by air conditioners to irrigate about 80% of the on-ground greenery. The remaining 20% of

irrigation water is derived from other recycled sources. In addition, all our vessels are equipped with sewage treatment systems.

Read more here.

Materials & waste

All our vessels are certified as complying with the mandatory MARPOL and IMO regulations. This includes requirements regarding treatment of sewage, waste, different residuals, and more:

Ballast Management & Sewage

All residuals on board are treated according to strict protocols to comply with all relevant, regulations. These include Bilge liquids, Sludge, Garbage, Wastewater treatment,

Recycling

ZIM HQ offices use recycled paper for printing and all wastepaper and batteries are sent for recycling. All the gardens of Matam Park, where ZIM HQ is located, are irrigated with water from the energy center or from the air conditioning system, which would otherwise be discharged into the sewage and sea.

Ship Scrapping & Recycling

All shipyards and facilities that we use for ship scrapping and recycling purposes are verified as meeting applicable international environmental convention standards including the IMO **Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships** (2009).

Used Containers for Sale

Another way in which we try to reduce our ecological footprint and encourage recycling is to extend the lives of our containers by offering a large inventory of used shipping containers for sale at the end of use. After we retire containers from our fleet, they begin new “careers” all over the world, providing outstanding solutions for diverse storage needs. Some are refitted and redesigned as residences, offices, classrooms, and more.

Reefer containers

ZIM is a pioneer in operating the leading and newest refrigerated container type, **Transicold PrimeLINE**, which is equipped with energy-saving technology that reduces carbon emissions, thus contributing to a cleaner environment.

ZIMonitor allows us to remotely monitor the refrigerator unit, on board vessels as well as inland, receive alerts in real time and respond if any error occurs. All the above-mentioned features make these units “smart containers”.

Read more here.

Biodiversity Conservation

One of the objectives of our cargo policy is to support biodiversity conservation. In order to support our policy and reduce the transfer of non-endemic species, all our vessels undertake ballast water exchange, replacing coastal water with ocean water at mid-voyage. We also avoid discharging any waste or oily water into the sea, especially in sensitive and protected areas, in accordance with the **MARPOL** Convention and regulations. For this reason, in accordance with and in addition to international laws, cargo consisting of (but not limited to) the following types of wildlife and wildlife products is prohibited on our vessels: shark fins, ivory, bone, pelts, horns, skins, furs, rugs and other body parts, organs or carcasses of wild animals, illegal trade of plants and wild animals, trophy animals (such as elephants, rhinoceros, tigers, lions, bears etc.), marine mammals, migratory birds, nests, eggs, feathers, other body parts, turtle or tortoise shell etc.

Read more here.

Ballast water

The IMO-International Convention for the Control and Management of Ships’ Ballast Water and Sediments, which regulates the exchange and treatment of ballast water, serves as a binding guideline for all ZIM-operated vessels (owned and chartered). Ballast water may contain invasive aquatic species which present a major threat to marine ecosystems. We have adopted measures that avoid this problem: all vessels manage their ballast water and sediments to a certain standard, according to international regulations. All ships carry a ballast water record book and record all ballast activity onboard. Our vessels comply with the USA, Canada and China ballast water regulations and reporting systems,

with records of all ballast activity onboard.

Read more here.