



## **Accounting Policies**

The report boundary includes assets in the parent company, subsidiaries and joint ventures, as well as employees in the parent company and subsidiaries. This report is published annually and covers the period 01.01.12-31.12.2012. The last CSR report was published in March 2012 and covered the period 01.01.2011-31.12.2011.

The reporting boundary can be divided into several categories: NORDEN's owned vessels, owned vessels which are operated by NORDEN, owned vessels which are in technical management by NORDEN, all operated vessels (owned and chartered), chartered vessels and owned vessels on contract to 3<sup>rd</sup> parties. Operated refers here to commercially operated which includes but is not limited to purchasing bunker and paying ports and agent costs. Technical management includes but is not limited to repair and maintenance of the vessel, staffing and waste. Throughout the report, it is specified what category the data refers to.

## **Energy and climate**

### CO<sub>2</sub> emissions

NORDEN's CO<sub>2</sub> emissions are calculated in accordance with the Greenhouse Gas Protocol and the financial control approach, where emissions are divided into scope 1, 2 and 3, is applied. Scope 1 emissions include emissions from owned vessels as well as owned company cars. Scope 2 emissions include emissions from land-based activities at NORDEN's offices worldwide, except the Annapolis office since electricity is integrated in rental costs. Scope 3 emissions include emissions from chartered vessels, leased company cars and business travel by air transport.

Due to replacement of the internal shipping system in 2012 fuel figures for the year has for both tankers and dry cargo vessels been based on both the old and new shipping system. The replacement was gradually implemented from October 1<sup>st</sup> 2012 to November 1<sup>st</sup> 2012. In this period some voyages were registered on both systems as part of the implementation strategy. Therefore voyages from the old system, Glomaris, were excluded if they were registered in the new system IMOS. This procedure was done to prevent double counting.

### *GLOMARIS/MOEPS (January 1<sup>st</sup> 2012 – November 1<sup>st</sup> 2012):*

Fuel figures for tanker vessels when arriving/bunkering/departing at port are automatically updated from MOEPS (Master's Operation Environmental Performance System) by synchronization of the fuel figures. In MOEPS the figures are partly updated manually by the operators and automatically by the vessel Captain through the MOEPS Client. For dry cargo vessels, the fuel figures are manually entered by the operator into GLOMARIS (Global Maritime Information Suite).

The total fuel consumption for tanker and dry cargo is calculated by adding the fuel that already exists on the vessel at the beginning of the voyage with the purchased bunker during the voyage. Thereafter subtracting the remaining fuel on the vessel when the voyage ends. This is done for each vessel and registered in the MOEPS and GLOMARIS systems.

### *IMOS (October 1<sup>st</sup> 2012 – December 31<sup>st</sup> 2012)*

Fuel figures for tanker and dry cargo vessels are registered when arriving/bunkering/departing a port in IMOS (Integrated Maritime Operating System). For tankers the figures are partly updated manually by the



operators or they can import the fuel figures stated by the Captain via MOEPS through an established integration to IMOS. For dry cargo vessels, the fuel figures are manually entered by the operator into IMOS.

The total fuel consumption for tanker and dry cargo is calculated by adding the fuel that already exists on the vessel at the beginning of the voyage with the purchased bunker during the voyage. Thereafter subtracting the remaining fuel on the vessel when the voyage ends. This is done for each vessel and registered in IMOS.

CO<sub>2</sub> emissions from vessels are calculated on the basis of the fuel quantity consumed on a voyage multiplied by the duration of the voyage (calculated pro rata) multiplied by the CO<sub>2</sub> emissions factor for each fuel type (for residual fuel oil the CO<sub>2</sub> emissions factor is 3.13, and for marine diesel oil and marine gas oil the CO<sub>2</sub> emissions factor is 3.19. Source: "Second IMO GHG Study 2009"). This data is applicable for all NORDEN operated vessels.

CO<sub>2</sub> emissions from owned company cars are calculated based on the following assumptions: all the cars are diesel cars with a yearly usage of 20,000 km per car, 12 km/l, and CO<sub>2</sub> emissions of 2.65 kg/l. The conversion factor is from Key2Green.

#### *Scope 2*

Emissions from offices are based on electricity, heating and air condition consumption for each office, except the Annapolis office where the electricity costs are integrated in the rental costs and therefore cannot be specified. The electricity, heating and air condition consumption data has been provided by each office by reading the meter at the beginning and end of the year. These figures are converted to CO<sub>2</sub> emissions from kWh using the International Energy Agency's conversion indicators for 2009 in the specific countries we are located in. (United States 508 grams CO<sub>2</sub>/kWh, Denmark 303 grams CO<sub>2</sub>/kWh, India 951 grams CO<sub>2</sub>/kWh, Singapore 519 grams CO<sub>2</sub>/kWh, China 743 grams CO<sub>2</sub>/kWh and Brazil 64 grams CO<sub>2</sub>/kWh)

The energy from our headquarters in Hellerup comes from the following primary energy sources: coal, natural gas, biofuel, oil, garbage and nuclear power. We do not have the data for our other offices.

#### *Scope 3*

Emissions from chartered vessels based on their fuel consumption are calculated in the same way as described for owned vessels in scope 1.

Leased company cars are calculated based on the following assumptions: all the cars are diesel cars with a yearly usage of 20,000 km per car, 12 km/l, and CO<sub>2</sub> emissions of 2.65 kg/l. The conversion factor is from Key2Green.

The CO<sub>2</sub> emissions from business travel are calculated according to the guidelines from the travel agencies which have provided us with the data. For voyage distances of less than 1,000 km, the factor 0.18 per km is used to calculate the CO<sub>2</sub> emissions, while for voyage distances of more than 1,000 km, the factor 0.11 per km is used.

#### Energy Efficiency Operational Indicator (EEOI)

EEOI is defined as: CO<sub>2</sub> emitted per metric ton of cargo transported, per nautical miles sailed. The formula used to calculate EEOI is



$$\text{Average EEOI} = \frac{\sum_i \sum_j (FC_{ij} \times C_{Fj})}{\sum_i (m_{\text{cargo},i} \times D_i)}$$

Where:

- $j$  is the fuel type
- $i$  is the voyage number
- $FC_{ij}$  is the mass of consumed fuel  $j$  at voyage  $i$
- $C_{Fj}$  is the fuel mass to CO<sub>2</sub> mass conversion factor for fuel  $j$
- $m_{\text{cargo}}$  is cargo carried (tonnes) or work done (number of TEU or passengers) or gross tonnes for passenger ships
- $D$  is the distance in nautical miles corresponding to the cargo carried or work done.

#### Climate action plan

Regarding the reduction of CO<sub>2</sub> emissions from the initiatives in the climate action plan, the effect is calculated based on assumptions about engine size, engine type and ballast conditions, and the effect of the initiatives is estimated based on guidelines from IMO and Intertanko. The data is applicable for owned vessels.

#### SO<sub>x</sub> and NO<sub>x</sub>

NORDEN has gone from reporting on simple average sulphur content in 2011 to weighted average sulphur content in 2012, as the latter is a more fair depiction of our SO<sub>x</sub> emissions. When buying bunkers the amount of low sulphur fuel is registered in MOEPS and GLOMARIS. SO<sub>x</sub> emissions are weighted as SO<sub>2</sub> emissions since this is presumably what the emissions will eventually become in time. SO<sub>2</sub> emissions are calculated from the fuel quantity consumed during the year multiplied by the average sulphur content in the fuel (in 2012: 2.31%) multiplied by 0.02 since sulphur is about twice as heavy as oxygen. The formula is provided by MAN Diesel & Turbo SE. The data is applicable for all NORDEN operated vessel.

NO<sub>x</sub> emissions are weighted as NO<sub>2</sub> emissions since this is presumably what the emissions will eventually become. NO<sub>2</sub> emissions are calculated from the energy that the main engine produces multiplied by the Tier I NO<sub>x</sub> limit which is 17 gr/kwh, as NORDEN's owned and operated vessels are Tier I compliant. The energy produced is calculated using the fuel oil consumed in kg divided by the SFOC which in this case is estimated to be 0.173 kg/kWh. Source: "Project Guide for MAN S50MC-C7 two-stroke engine, 6th Edition, January 2009". The data is applicable for all NORDEN operated vessel.

#### Waste

The data for waste is applicable for owned vessels which are in technical management by NORDEN. The waste handled on board is categorized in six categories in accordance with the MARPOL convention. These categories are: [1] plastics, [2] floating dunnage, lining, or packing materials, [3] ground paper products, rags, glass, metal, bottles, crockery etc., [4] cargo residues, paper products, rags glass, metal, bottles, crockery etc., [5] food waste and [6] incinerator ash except from plastic products which may contain toxic or heavy metal residues. The waste data reported in the CSR report does not include category 4.

Category 4 has been excluded as this category is dependent on the type of cargo transported. This is a commercial decision and the choice of cargo has a direct effect on the amount of waste and hence the



target. Therefore, we have decided to base our new target on categories where our procedures and crew onboard can influence the amount of waste.

The amount of waste is reported to the office by the master of a vessel each month. The records of the disposed waste are registered in the garbage record book. Our waste is disposed of in accordance with Marpol Annex V. All records are conducted in cubic meters.

### **Maritime safety and security**

#### Vetting

Vetting inspections are performed by inspectors from oil companies in accordance with the Ship Inspection Report Programme (SIRE). Observations identified during the inspection are reported to vessel and office by the inspector (results are also recorded in the SIRE database by OCIMF). The data is applicable for owned vessels which are in technical management by NORDEN.

#### PSC

Port State Controls are performed by inspectors from a relevant PSC MOU, and the result of the inspection is reported to the master of the inspected vessel, who forwards the inspection report to office. The data is applicable for owned vessels which are in technical management by NORDEN.

#### Near-miss, LTIF and TRCF

The data is applicable for employees at sea on NORDEN owned vessels which are in technical management by NORDEN.

Near-miss, Lost Time Injury Frequency and Total Recordable Case Frequency are reported monthly from the master of the vessel to office in accordance with OCIMF's 'Marine Injury Reporting Guidelines'.

Near-misses refer to situations, which could have led to an accident if they had developed further.

NORDEN measures Lost-Time Injury (LTI) frequency rate as work-related incidents per 1 million working hours which result in occupational illness causing absence from work for more than 24 hours. The LTI frequency rate is measured as an average over the past 12 months.

The Total Recordable Case Frequency (TRCF) indicates the number of incidents that have resulted in medical treatment. It is calculated per 1 million working hours.

### **Employee conditions**

The number of employees has been divided according to GRI by gender, age, employment contract and type. We have divided our reporting into employees at sea and employees on shore.

#### Employees at sea

When an employee at sea is hired, his information is putted into our system "Omega" manually by an employee on shore. All the employees at sea are full-time.

An indefinite or permanent contract is a contract with an employee for full-time for an undefined period.



A fixed-term or temporary contract is a contract of employment that ends when a specific time period expires, or when a specific task, that has a time estimate attached, is completed.

The retention rate is calculated based on the average number of employees in the reporting period. It is calculated as the number of employees that left in the reporting period divided by the average number of employees in that same period. The data is drawn from Omega and sorted by employment date and eventual dismissal date.

Rest hours are monitored in accordance with ILO and STCW conventions. All violations of rest hours conventions are recorded onboard each vessel and they are all reported to office on a monthly basis. Rest hour non-conformity is calculated per full-time equivalent, i.e. how many violations have occurred per 1 crew member onboard a vessel during 1 month.

#### Employees on shore

Employees on shore are employees hired for a position on land in one of our offices.

When hired employees are registered manually in our HR system, People Focus, data such as gender, age, position and work office is recorded. Management includes employees above General Manager level.

Full-time employees are employees who work 37 hours a week, while part-time employees are employees who work under 37 hours a week. Student workers are included in part-time employees.

An indefinite or permanent contract is a contract with an employee for full-time or part-time work for an undefined period.

A fixed-term or temporary contract is a contract of employment that ends when a specific time period expires, or when a specific task, that has a time estimate attached, is completed. Trainees and maternity leave replacements are included in this category.

The retention rate is calculated based on the average number of employees in the reporting period. It is calculated as the number of employees that left in the reporting period divided by the average number of employees in that same period. The data is drawn from People Focus and sorted by employment date and eventual dismissal date.

#### **Anti-corruption**

The external investigator has provided us with data on the amount of reported incidents.