

ASSURANCE STATEMENT



Assurance Statement related to Greenhouse Gas Emissions Inventory and Sustainability Data for Fiscal Year 2016 prepared for Carnival Corporation & plc.

Terms of Engagement

This Assurance Statement has been prepared for Carnival Corporation & plc. (Carnival).

Lloyd's Register Quality Assurance Inc. (LRQA), an affiliate of Lloyd's Register North America, Inc., was commissioned by Carnival to assure its Greenhouse Gas (GHG) Emissions Inventory and Sustainability Data Assertion for the fiscal year (FY) 2016 (December 1, 2015 to November 30, 2016).

The GHG Emissions Inventory includes direct GHG emissions and energy indirect GHG emissions.

The following were excluded from the GHG Emissions Inventory on the basis of their de minimis contribution to the total direct and energy indirect GHG emissions and sense-checked during the engagement:

- Fuel combustion GHG emissions from emergency generators used in shore facilities;
- Combustion GHG emissions from burning waste in the shipboard incinerators;
- Fugitive release of Sulphur Hexafluoride (SF₆) gas from shipboard circuit breakers;
- Fugitive release of Methane (CH₄) gas or Carbon Dioxide (CO₂) from shipboard Marine Sanitation Devices or Advanced Waste Water Treatment plants;
- Fugitive release of refrigerant gas from shore hotels and offices;
- Electricity consumption from shore offices smaller than 8,000 square feet;
- Small water craft at Carnival owned islands; and
- Releases of Halon and CO₂ based fire suppression systems on board the ships.

The Sustainability Data Assertion includes the following parameters:

- Total Ship Fugitive Refrigerant Releases (Kg);
- Total Ship Ozone Depleting Substances (ODS) Emissions (Kg CFC-11e);
- Total Ship Energy Consumption (Gigajoules);
- Total Ship Fuel Consumption (Metric Tonnes);
- Ship Fuel Consumption Rate (Grams Fuel/Available Lower Berths-Km);
- High Sulfur Fuel Oil (Percent of total Ship fuel consumption);
- Low Sulfur Fuel Oil (Percent of total Ship fuel consumption);
- Marine Diesel Oil/Marine Gas Oil (Percent of total Ship fuel consumption);
- Total Potable Water Purchased (Tonnes);
- Total Potable Water Produced (Tonnes);
- Total Number of Significant Spills;
- Total Number of Reportable Spills;
- Total Volume of Reportable Spills (Liters);
- Total Number of Non-monetary Sanctions; and
- Total Monetary Value of Fines (US Dollars).
- Total Number of Centers for Disease Control and Prevention (CDC) VSP Inspections
- Total Number of CDC VSP Inspections - Ships scoring 100%
- Total Number of CDC VSP Inspections - Ships scoring 86-99%
- Total Number of CDC VSP Inspections - Ships scoring <86%



Management Responsibility

The management of Carnival was responsible for preparing the GHG Emissions Inventory and Sustainability Data Assertion and for maintaining effective internal controls over the data and information disclosed. LRQA's responsibility was to carry out an assurance engagement on the GHG Emissions Inventory and Sustainability Data Assertion in accordance with our contract with Carnival.

Ultimately, the GHG Emissions Inventory and Sustainability Data Assertion have been approved by, and remain the responsibility of Carnival.

LRQA's Approach

Our verification has been conducted in accordance with ISO-14064-3:2006 *Specification with guidance for validation and verification of greenhouse gas assertion* for the GHG data and LRQA's verification procedure for the Sustainability Data Assertion to provide limited assurance that the data as presented in the GHG Emissions Inventory and Sustainability Data Assertion for Carnival have been prepared in conformance with ISO 14064-1:2006 *Specification with guidance at the organizational level for quantification and reporting of greenhouse gas emissions and removals* and Carnival sustainability data management processes.

To form our conclusions the assurance engagement was undertaken as a sampling exercise and covered the following activities:

- Conducted a site visit to Carnival Corporate Headquarters and phone interviews with representatives from two of the Carnival brands;
- Reviewed the processes for the management of data and information related to the direct and energy indirect GHG emissions used at the Carnival corporate level and by the two sampled brands;
- Interviewed relevant staff responsible for managing and maintaining data and information and for preparing and reporting the GHG Emissions Inventory and the Sustainability Data Assertion for Carnival;
- Verified the direct and energy indirect GHG emissions for FY 2016; and
- Verified the Sustainability Data Assertion which is a subset of Carnival's complete set of sustainability data parameters.

Level of Assurance and Materiality

The opinion expressed in this Assurance Statement has been formed on the basis of a limited level of assurance and at a materiality of the professional judgement of the Verifier.

LRQA's Opinion

Based on LRQA's approach, nothing has come to our attention that would cause us to believe that the total direct GHG emissions, energy indirect GHG emissions and Sustainability Data disclosed by Carnival in its GHG Emissions Inventory and Sustainability Data Assertion for FY 2016, as summarized in Table 1 below, are not materially correct and that the GHG Emissions Inventory and Sustainability Data Assertion have not been prepared in conformance with ISO 14064-1:2006 and Carnival sustainability data management processes.

Signed

Dated: June 27, 2017

A handwritten signature in black ink, appearing to read 'Derek Markolf'.

Derek Markolf
 LRQA Lead Verifier
 On behalf of Lloyd's Register North America, Inc.,
 represented by Lloyd's Register Quality Assurance, Inc.,
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LRQA Reference: WO 4800080

Table 1. Summary of Carnival, GHG Emissions Inventory and Sustainability Data FY 2016

Data Parameter	Data
Direct (Scope 1) GHG Emissions (Tonnes CO ₂ e)	10,491,277
Energy Indirect (Scope 2) GHG Emissions – Location-Based (Tonnes CO ₂ e) ¹	47,759
Energy Indirect (Scope 2) GHG Emissions – Market-Based (Tonnes CO ₂ e) ¹	47,136
Total Ship Fugitive Refrigerant Releases (Kg)	117,936
Total Ship ODS Emissions (Kg CFC-11e)	10,292
Total Ship Energy Consumption (Gigajoules)	133,946,419
Total Ship Fuel Consumption (Tonnes)	3,233,138
Ship Fuel Consumption Rate (Grams Fuel/ALB-Km)	82.5
High Sulfur Fuel Oil (Percent of total Ship fuel consumption)	75.8%
Low Sulfur Fuel Oil (Percent of total Ship fuel consumption)	3.0%
Marine Diesel Oil/Marine Gas Oil (Percent of total Ship fuel consumption)	21.2%
Total Potable Water Purchased (Tonnes)	6,079,254
Total Potable Water Produced (Tonnes)	20,487,252
Total Number of Significant Spills ²	0
Total Number of Reportable Spills ³	39
Total Volume of Reportable Spills (Liters)	1,577
Total Number of Non-monetary Sanctions	0
Total Monetary Value of Fines (US Dollars)	\$277,401
Total Number of CDC VSP Inspections	109
Total Number of CDC VSP Inspections - Ships scoring 100%	13
Total Number of CDC VSP Inspections - Ships scoring 86-99%	94
Total Number of CDC VSP Inspections - Ships scoring <86%	2

1. Scope 2, Location-based and Scope 2, Market-based are defined in the GHG Protocol Scope 2 Guidance, 2015.
2. A significant spill is defined as a spill for which the monetary sanctions are greater than \$100,000.
3. A reportable spill is a spill greater than 500ml. However, in US waters, any spill that causes oil sheen is to be reported.

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Due to inherent limitations in any internal control, it is possible that fraud, error, or non-compliance with laws and regulations may occur and not be detected. Further, the verification was not designed to detect all weakness or errors in internal controls so far as they relate to the requirements set out above as the verification has not been performed continuously throughout the period and the verification carried out on the relevant internal controls were on a test basis. Any projection of the evaluation of control to future periods is subject to the risk that the processes may become inadequate because of changes in conditions, or that the degree of compliance with them may deteriorate.

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