

GREENHOUSE GAS STATEMENT VERIFICATION REPORT



Mattson Containers GmbH / Konttivuokraus Oy
Production location:
Poikkimaantie 4
90400 Oulu

Synergetic Insight Consultancy
Pannipitiya
Sri Lanka

Abbreviation

CH ₄	Methane
CO ₂	Carbon Dioxide
COI	Conflict of Interest
GHG	Greenhouse Gas
HFC	Hydrofluorocarbon
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization
MT CO ₂ e	Tonnes of Carbon Dioxide Equivalent
N ₂ O	Nitrous Oxide
PRA	Partial Remote Assessment
SIC	Synergetic Insight Consultancy

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Introduction

MC Containers is a renowned global full-service supplier specializing in the provision of intermodal containers, custom containers, and modular spaces. With their comprehensive range of services, MC Containers caters to diverse needs, whether it is purchasing, leasing, or creating tailor-made special containers. Their commitment to excellence ensures that customers can rely on them to deliver efficient and reliable container-based solutions across various industries, including shipping and the education sector. MC Containers prioritizes exceptional service, allowing their clients to focus on their core businesses, no matter where they are located.

To meet the organizational sustainability objectives, the MC Containers has quantified its greenhouse gas emissions for the year 2022 (1st January 2022 – 31st December 2022).

In response to the request made by management of MC Containers, Synergetic Insight Consultancy carried out a third-party verification of the GHG statement for the MC Containers for the first time. The verification included a series of assessments and a review of supporting evidence submitted through an online platform. The verification was undertaken with guidance for the verification and validation of greenhouse gas statements.

This report provides the outcomes of the independent verification of Greenhouse Gas (GHG) Statement of MC Containers prepared based on the historical data and information covering the period from 1st January 2022 to 31st December 2022.

1 Verification Body Information

Name	Synergetic Insight Consultancy
Address	1185/1, Vidyalaya Junction, Pannipitiya, Sri Lanka
Contact Details	+94763665602

2 Client Information

Name	Mattson Containers GmbH / Konttivuokra Oy
Production location	Poikkimaantie 4,90400 Oulu,Finland
Company Address	Ruhrstrasse 11A, 22761 Hamburg, Germany
Contact Details	jesse@mccontainers.com

3 Verification Summary

The purpose of this report is to present a detailed analysis of MC Containers' emissions, specifically focusing on scope 1 and scope 2 emissions. The report aims to provide an accurate assessment of the organization's environmental impact.

Verification Objectives	The objective of the verification was to assess whether the GHG statement for MC Containers, 2022 operations is accurately prepared in accordance with appropriate criteria.
Verification Scope	Following elements were included in the scope of the analysis of operational emissions for the period 1st January 2022 to 31st December 2022. Only Scope 1 and 2 emissions were considered. <ul style="list-style-type: none"> - Organizational and reporting boundaries - Activities, technologies & processes - Types of GHGs
Level of Assurance	Reasonable
Materiality	Quantitative discrepancies were calculated to understand the impact of them as a percentage of the GHG statement. The pre-defined materiality threshold is 5% of the total inventory.
Verification Team	Mr. Rishan Sampath MSc, Environmental Management, University of Colombo, Sri Lanka, BSc, Biotechnology, University of Colombo, Sri Lanka Auditor in ISO14001, ISO 14064

4 Reporting period

This GHG report is relevant to the monitoring period starting 1st January 2022 to 31st December 2022.

5 Organizational boundaries

This report is based on the GHG inventory of MC Containers' production facility located in Poikkimaantie 4, 90400 Oulu, Finland.

6 Verification Process

6.1 Verification and Analysis Process

The scope of the verification was defined during the verification planning stage and all the utility documents were verified which were submitted through an online platform.

6.2 Conflict of Interest (COI) Determination

Verifiers first self-assess the potential for a conflict of interest between the verification team and the MC Containers. An impartiality risk analysis was performed in order to ensure whether or not a COI exists between the verifiers and the responsible parties. Accordingly, SIC concurred with the determination that there is no pre-existing relationship between participants and therefore the potential for COI is low.

7 Boundary and Data Selection

The GHG emissions have been consolidated through the operational control approach and are reported in terms of tonnes carbon dioxide equivalent (MT CO_{2e}). Under the reporting boundaries, The MC Containers has reported operation related emission for three GHGs. They are carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O). The activities that lead to emit other gases have not been occurred in the reporting period. Reporting boundaries covered in the assessment are as follows;

Direct Emissions

Stationary fuel oil combustion for process

Indirect Emissions

Emissions from purchased electricity

8 Data Calculations

Scope 1 and 2 emission comparison was done using the emission factors from IPCC guideline 2006; Emission Factor from Cross sector Tools developed by GHG protocol, 2017, and country specific grid emission factor database published by International Energy Agency (IEA) for 2020.

9 GHG Emissions

Total GHG emissions resulting from operations of the production site of MC Containers for the monitoring period is 46.33 tonnes of Carbon Dioxide Equivalent (CO_{2e}). This includes the following:

- Direct GHG emissions resulting from fuel purchased, fuel usage for production
- Energy indirect GHG emissions resulting from purchased electricity

9.1 Direct emissions by source

Emissions arising from direct energy use is 27.98 tonnes of CO_{2e} equivalent. A fuel wise breakdown is available below.

Emission Source	MT CO ₂ e
Stationary furnace oil combustion for process	27.98

9.2 Direct GHG emissions by source and individual GHG types

Emission Source	kg CO ₂ e	kg CO ₂	kg CH ₄	kg N ₂ O	kg HFC
Total Direct GHG emissions (After rounded up to the highest value)	27,977.08				
Furnace Oil Combustion	27,977.08	27,819.29	100.64	57.15	0

9.3 Energy Indirect Emissions by Source

Energy indirect GHG emissions for the monitoring period is 18.35 tonnes of CO₂e. This includes electricity purchased through the national grid.

Emission Source	kg CO ₂ e
Purchased electricity	18,354.00

9.4 Direct and Indirect Emissions

Type of emissions	Emissions (Tonnes CO ₂ e)
Direct Emission	27.98
Indirect Emission	18.35
Total	46.33

10 GHG removals

There were no identified GHG removal sources for the reporting period.

11 Excluded Sources and Sinks

Only direct emissions and energy indirect GHG emission (Scope 01 and 02) are considered for this report. A data collection system for other upstream and downstream indirect emission (Scope 03) is not yet established, and no data is currently available under these categories for the reporting period. Therefore, other indirect emissions sources (Scope 03) are not included.

12 Method of Quantification and Reasoning

Emissions source	Method of quantification	Unit of activity measurement	Method of collecting activity data
Purchased Electricity	Activity data multiplied by emissions factor	kWh	Monthly utility bill provided by the service provider indicates the kWh used by the facility.
Furnace oil for production	Activity data multiplied by emissions factor	Liters	Fuel purchase records were obtained through the finance department ERP

12.1 Measurement vs. Purchases – Conservative Approach

The fuel usage indicated in the verification report relates to the total amount of each type of fuel purchased during the monitoring period. The actual consumption indicated by the measuring equipment is lesser than the total purchases.

It was identified that most measurement equipment used in the facilities were not calibrated. Therefore, to avoid measurement bias, the purchase records for each type of fuel and refrigerant were used to form the emissions inventory.

13 Reference to the Emissions Factors Used

13.1 Grid Emissions Factor for Purchased Electricity

Grid Emission Factors were obtained from International Energy Database (2020 update).

13.2 Stationary Combustion Emission Factors

The following emissions factors were used to calculate GHG emissions arising from direct energy use.

Stationary Combustion Emission Factors

fuel	unit	source	Factor per unit			GWP			Kg CO ₂ e per unit
			CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O	
Furnace Oil	L	Cross-Sector tools-GHG Protocol, 2017	2.9393424	0.00037976	2.28E-05	1	28	265	2.956

14 Description of Uncertainty, Accuracy and Conservative Approach

Wherever the purchases were made in bulk (furnace oil) it was assumed that the total quantity that was purchased was used by the organization within the monitoring period, regardless of the remaining quantities. This approach was used to overcome the uncertainties in measurement methods and measurement equipment used by the organization.

The emission factors for quantifying emission from fossil fuel combustion are derived from IPCC guideline published in 2006 and Emission Factor from Cross sector Tools developed by GHG protocol in 2017. The factors containing these sources are formulated based on the physical and chemical properties of fuel, standard operating conditions of the internal combustion engines and other environmental factors. In the context of current GHG inventory, fuel burning conditions of vehicles and machineries could significantly deviate from the standard technological and environmental conditions. Accordingly, the uncertainty of emission factors given in IPCC-GL, 2006 for the fossil fuel combustion of stationary and mobile sources could be ranging from $\pm 2\%$ to 5%. In lowering this uncertainty, default emission factors provided in IPCC guidelines were used in the calculation.

Thus, the latest published emissions factors were used to calculate the fuel emissions factors for current GHG inventory. Assessment GHG Data & Information

Fuel purchased records were checked to verify the accuracy of fuel consumption of stationary combustion of furnace oil. Activity data of electricity consumption resulting in indirect GHG emission of the organization was examined during assessment. Utility bills for electricity were available during the assessment for inspection. issued by the respective utility service provider.

15 GHG Emission Mitigation Plans & Strategies

In order to reduce the GHG emissions associated with the operations, MC Containers has implemented following sustainability initiatives.

15.1 Installation of Renewable Energy.

On the target for renewable energy, MC Containers has started installing solar power systems on viable factory roofs in 2017. The energy generated from the system cater for day-to-day electricity requirements and supply excess generation to the national grid. The number of 40 panels are installed and capable of generating over 2114 kWh annually with more than 154 kg CO_{2e} saving.

15.2 Initiatives for Energy Efficiency

The production facility established during the period of 2017 to 2020 under the high energy savings guidelines. Energy efficiency in lighting systems is improved through the use of LED bulbs with motion control. Heat retention inoculations are using and a heat recuperation system for heating.

16 Verification Opinion

SIC has verified organization level GHG statement of MC Containers for the period 1st January 2022 to 31st December 2022. The management of MC Containers is responsible for the preparation and fair presentation of the GHG statement specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.

The responsibility of SIC is to express an opinion on GHG statement based on verifications conducted. Evidence gathering procedures of SIC included utility bills to confirm accuracy of source data into calculations.

The verified GHG Statement of 1st January 2021 to 31st December 2021 comprise followings

Direct GHG Emissions : 27.89 tonnes of CO₂ equivalent

Indirect GHG Emissions : 18.35 tonnes of CO₂ equivalent

Total GHG Emission, 2022: 46.33 tonnes of CO₂ equivalent

Date- 26th May, 2023

Rishan

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