

MEMORANDUM

TO: Chemical Packaging Committee Members

FROM: Paul Rankin, Chair

DATE: June 10, 2022

RE: Packaging Sustainability: Reusable Industrial Packaging Carbon Project

The International Confederation of Container Reconditioners has initiated an exciting new project that will enable companies to easily calculate and report their carbon emission savings arising from the use of reconditioned industrial packagings.¹ ICCR is collaborating with Ernst & Young's (EY) sustainability consultancy to develop an easy-to-use carbon savings calculation-tool for industrial packaging users.

ICCR is a world-wide organization representing private container reconditioning companies. The group is governed by the three principal trade associations representing Japan, Europe and North America.² ICCR membership also includes reconditioning firms operating in South Africa, Australia and China. ICCR provides a coordinated effort on international regulatory, legislative and standards issues.

Carbon emissions related to the use of reconditioned packagings are classified as Scope 3 emissions under the *Greenhouse Gas Protocol Corporate Accounting and Reporting Standard*.³ As such, Scope 3 emission savings arising from the use of reconditioned packagings - - in this case reconditioned industrial packagings - - may, if calculated in an appropriate manner, be used to offset your company's current carbon emissions and play a role in advancing your company towards its goal of achieving net-zero carbon emissions.

The ICCR Carbon Project is presently in its early stages. We have updated a "Green Packaging Calculator," which was originally created for use by the members of the Reusable Industrial Packaging Association. It can be used to demonstrate how the system will work. Screen shots of several pages of the Calculator appear below.

¹ For this project, the term "reconditioned industrial packagings" includes 55-gallon (220L) steel and plastic drums, and 275-gallon (1000L) and 330 gallon (1250L) composite intermediate bulk containers that have completed at least one trip and are then reused for their original intended purpose.

² Syndicat Européen Récupérateurs et Rénovateurs de Drums; Japan Drum Reconditioners' Association; Reusable Industrial Packaging Association.

³ World Business Council on Sustainable Development/World Resources Institute

Next, we are seeking interviews with sustainability representatives from a variety of stakeholders, i.e. companies that are known to use reconditioned industrial packagings. These interviews, which will last no longer than one hour, will inform our research by helping us to understand the needs and requirements of packaging users regarding carbon emissions, specific technical issues of concern to your company related to the proposed tool, and other comments and ideas you may have on this subject.

The goals of this stakeholder consultation are (a) to determine whether your company sees a need for an industrial packaging carbon saving calculation tool, (b) to gain insight into how such a tool might be used and applied by your company, and (c) to learn if there are specific functionalities and underlying methodologies you believe such a tool should contain.

We hope you will find this project to be of interest to your company. If so, we respectfully ask that you allow us to arrange a time for a conversation with a sustainability representative. Please contact Paul Rankin at prankin@ripaus.com (202.258.6279) and he will get back to you as soon as possible to arrange a date and time for an interview.

Promoting Safe and Sustainable Design, Manufacturing, Remanufacturing and Reuse for the Industrial Packaging Industry.

RIPAA
REUSABLE INDUSTRIAL PACKAGING ASSOCIATION

This lifecycle assessment application was created for the Reusable Industrial Packaging Association. It provides in three steps the environmental impact of industrial packaging solutions, expressed in carbon dioxide (CO₂) equivalents. Calculated impacts will enable users to select containers and understand the impact on the environment of such selections. This calculator may not be used for any other purpose except those noted herein.

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Green Packaging Calculator

About Instructions Start

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Product: Steel drum 1 Open head

RIPAA & Sustainability
For nearly three-quarters of a century, the Reusable Industrial Packaging Association (RIPAA) has been the trade association representing North American reconditioners, manufacturers and distributors of reusable industrial packaging. RIPAA represents over 90% of the industrial packaging reconditioning industry in North America including many of the world's leading manufacturers of steel, plastic and fiber drums, as well as intermediate bulk containers (IBCs).

This Green Packaging Calculator presents environmental impacts of an industrial packaging in a cradle to grave analysis. All aspects from resource extraction up to the production and reconditioning at the location, as well the

Product composition

Steel	40,8 lb/containers	Client name	Drum user
Virgin PE	0 lb/containers	Reference	north america's
Recycled PE	0 lb/containers	Address	-
PE-mix	0 lb/containers		
Distance to client	60 miles		
Payload	140 items per truck		

Step 2: Compose your product

RIPAA
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Green Packaging Calculator

Product offer contains packages

- Open head 55-gallon
- Tight head 55-gallon

Product specifications

1,2/0,9/1,2 mm steel

Steel 40,8 lb

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Lifecycle impact comparison: one new vs one reconditioned packaging system

Category	Value
New	83 lb CO ₂ e/unit
Reconditioned	29 lb CO ₂ e/unit
CO₂ Saving per Unit:	54 lb CO₂e
CO₂ Saving for Selected:	7.577 lb CO₂e

This figure displays the carbon footprint of both a newly manufactured and a reconditioned Steel drum. In the newly manufactured packaging system all material and processor are taken into account needed to produce one packaging. The reconditioned packaging system includes all material and processor starting after it is empty in its previous 'life'. Both systems include an end of life scenario.

The Carbon Footprint of a product is an environmental indicator for the amount of greenhouse gases emitted, aggregated in carbon dioxide equivalents (CO₂e). The environmental impact caused by greenhouse gases is climate change, meaning the slow change of the climate caused by the build-up of greenhouse gases, which obstructs solar

Disclaimer
This Carbon Footprint report is based on the Lifecycle Assessment methodology, guided by ISO 14040-44 standards. The study and application behind this data sheet have been carried out by EY on behalf of RIPAA. It has been supported by SteelPro B.S. and Inflowe using the method IPCC factors and the European Database (EUEI). No rights can be derived from the information provided in this data sheet. Under no circumstances RIPAA or any of its subsidiaries is liable for damages of whatever nature, in consequence resulting from the use of information presented in this data sheet. For any further information please contact info@ripaa.org