



INTERNATIONAL CONFERENCE ON INDUSTRIAL PACKAGING

SESSION 5: TECHNICAL AND REGULATORY DEVELOPMENTS

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MANAGING EMPTY RESIDUE PACKAGING: A GLOBAL PERSPECTIVE





Congratulations Eddy!

2023 Recipient

Morris Hershson
International Award of
Excellence

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Managing Empty Residue Packaging

**It's a global
problem!**



Managing empty residue packaging

- Two categories of residue:
 - Regulated material (dangerous goods)
 - Unregulated material
- Focus of presentation: management of dangerous goods (“DG”) residue



Managing empty residue packaging

Europe

- Empty residue containers are classified as “wastes” in many EU countries
- No common scheme for managing DG residue containers; several EU member-nations have adopted a rule that “empty” means “less than 5% by volume”

Managing Empty Residue Packaging

Canada

The general rule is that a drum must be “thoroughly emptied....”

This means: All the previous contents must be removed by the emptier “...using the most effective method for the type of content (e.g., can include pouring, upending, pumping, aspirating, scraping, rinsing, etc.).”

General rule does not apply to firms holding an “equivalency certificate.” EC says container is empty if it retains “up to 10% of capacity” for a drum and 1% of capacity for an IBC.

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Japan

- Japanese Industrial Standard JIS Z 1641 allows “about 3 liters” of dangerous goods residue in a steel drum managed by a reconditioner.
- JIS Z 1641 also defines “quantity of residue,” saying such residue “...shall be as...minimum as possible [after being emptied] by such methods as sucking and turning the drum upside down.”
- JDRA has adopted its own drum emptiness standard that is more stringent than the JIS standard. It requires emptiers to drain drums to not greater than 0.5% of its 200-liter capacity, or about .13 gallons (17 ounces) of residue.

Managing Empty Residue Packaging

United States

- Container emptiers must ensure their drums and IBCs are as empty as possible using practices commonly employed to remove materials from drums, (e.g., pumping, pouring and aspiration).

AND

- For viscous materials, not more than 2.5 centimeters (about one inch) of material may remain on the bottom of a drum. For IBCs, not more than 0.3 percent by weight of the total capacity of the IBC may remain. This roughly translates to about 0.8 gallons of material in a 1000 L (275-gallon) IBC.



Managing
Empty
Residue
Packaging

ICCR

- *ICCR International Code of Operating Practice* states:
 - No drum or IBC may be accepted that is not empty, unless the firm holds appropriate management permits. “Empty” means all the residue that can be removed by the emptier has been removed using practices commonly employed to remove such material (e.g., pumping, pouring, scraping, etc.).

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There is no internationally
accepted definition for
empty residue drums or
intermediate bulk
containers (IBCs)

Managing Empty Residue Packaging

- The world needs an internationally consistent definition of an “empty” industrial packaging.
- ICCR should lead the way towards global acceptance of a beneficial global definition of “empty” packaging. The group is respected and has a history of success in international work.
 - UN adopts uniform definitions of reconditioning, remanufacturing, new container markings, reconditioned container markings, and record-keeping.
 - ICCR adopts International Code of Operating Practice
 - UN allows reconditioning of plastic drums and use of regrind in manufacture
 - UN adopts definitions for IBC repair & routine maintenance

Managing Empty Residue Packaging

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 - A single, global definition of “empty” will help our industry, our customers and government regulators.
 - Limit the amount of residue in packagings
 - Motivate governments to focus on the role of emptiers to limit residue in “empty” packaging
 - Encourage governments to no longer define residue packaging as “waste”

Adopt a common global approach to empty residue container management

(1) Create a written empty drum and IBC acceptance policy for describing the amount of residue that will be accepted in 200-liter (55-gallon) drums and identifies residues that would and would not be accepted, in accordance with national rules and customs.

(2) Develop a contractual understanding that any emptier who provides a reconditioner with a drum or IBC that fails to meet the emptiness standards would have that container returned to them, as viable product, at their expense.

(3) Create an internationally consistent “empty container certificate” that will be signed by the emptier and accompany each load certifying that the containers moving to a reconditioner meet the local or national emptiness standard.

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THANK YOU!