



Maintenance, Repair and Remanufacture

Use the regulatory category that matches the work actually performed

THE CLEAN TANK STANDARD

Commercial words such as reconditioned and rebottled do not replace the federal categories. Identify the work, preserve the design type, perform the required post-work tests and inspections, and describe the product accurately.

01 The three regulatory categories

CATEGORY	CORE MEANING	TYPICAL EXAMPLES
Routine maintenance	Limited routine work that does not alter the design type or adversely affect containment.	Cleaning; replacing closures, gaskets or service equipment to original specifications; limited structural restoration not affecting containment.
Repair	Restoring a damaged or affected IBC to its original design type and ability to withstand design tests.	Replacing a rigid inner receptacle with one from the original manufacturer; qualifying structural or service-equipment repairs.
Remanufacture	Producing a UN type from a non-UN type or converting one UN design type to another.	A controlled conversion subject to the same requirements as a new IBC of that type.

02 Terms the salesperson must not blur

- Cleaning alone is not the same as repair.
- Replacing the composite IBC's bottle with one from the original manufacturer is a repair, not merely routine maintenance.
- Rigid plastic IBC bodies and composite IBC inner receptacles are not repaired; a defective inner receptacle is replaced or the IBC is removed from service.
- A different component manufacturer or configuration can raise a design-type issue and must be technically reviewed before any UN representation.



03 **Routine maintenance boundaries**

MAY FIT ROUTINE MAINTENANCE	CONDITIONS
Cleaning	The process does not damage the IBC or obscure required markings.
Closure, gasket or service-equipment replacement	Component conforms to the original manufacturer's specifications and leaktightness is verified.
Straightening legs or lifting attachments	The item does not directly perform a containment or discharge-pressure function, the design type is restored and containment is unaffected.

04 **What repair triggers**

- Conformance to the original design type and capability to withstand applicable design qualification tests.
- Applicable retesting and internal/external inspections under 49 CFR 180.352.
- Leakproofness testing for liquid IBCs or solids loaded/discharged under pressure.
- Durable marking near the manufacturer's UN design-type marking showing country, test/inspection party and month/year.
- Records describing the packaging, work, tests, inspections and results.

BOTTLE REPLACEMENT

A new inner receptacle does not erase the history of the outer assembly. The finished composite IBC must still conform to the original design type, carry the required repair/test/inspection information and be supported by records.



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Translate commercial product names accurately

COMMERCIAL DESCRIPTION	REQUIRED CLARIFICATION BEFORE QUOTING
New IBC	Is the complete IBC newly manufactured and marked by the manufacturer? What valve, closure, pallet, capacity and design type apply?
Rebottled IBC	Whose inner receptacle is installed? Does it conform to the original design type? Were the post-repair test, inspections, marks and records completed?
Reconditioned IBC	What was cleaned, replaced, maintained or repaired? Is the bottle used? What periodic status and intended service apply?
Non-UN IBC	Is it clearly represented and controlled so it is not mistaken for packaging authorized for regulated transportation?

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Approved sales language

CUSTOMER ASKS	RESPONSE
'Is a rebottle basically new?'	'It has a new inner receptacle, but the composite IBC is a repaired assembly. We document the work and required testing rather than representing the entire unit as newly manufactured.'
'Can any bottle go in that cage?'	'No. The completed IBC must conform to its design type. We verify the manufacturer and configuration before representing it for UN service.'
'Did you repair the bottle?'	'A defective composite inner receptacle is replaced; it is not repaired.'

ESCALATE

Unknown bottle manufacturer, mixed components, altered cage or pallet, missing original mark, welding or structural work, changed valve/closure design, or any request to convert a non-UN unit to UN service.



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Knowledge check

1. How is replacement of a rigid inner receptacle with one from the original manufacturer classified?
2. Can a damaged composite inner receptacle be repaired?
3. What must remain unchanged for an IBC repair?
4. Name two post-repair obligations.
5. Why is 'rebottled' not a complete regulatory description?

ANSWER KEY

1. Repair. | 2. No; it must be replaced or the IBC removed from service. | 3. The completed IBC must conform to the original design type. | 4. Examples: leakproofness test, internal/external inspection, durable repair marking and records. | 5. It does not state component conformity, design type, tests, inspections, markings or records.

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Regulatory basis and source links

The current Hazardous Materials Regulations control. These links were checked for this revision on September 17, 2026.

- [49 CFR 180.350 - Applicability and definitions](#)
- [49 CFR 180.352 - Requirements for retest and inspection](#)
- [PHMSA Interpretation 12-0056R - replacement inner receptacle](#)