

EPA's Refillable Container Requirements Are You Ready?

IFCA Workshop
January 20, 2011

Container-Containment Rule Overview

Category	Nonrefillable Containers	Refillable Containers	Repackaging Products	Container Labeling	Containment Structures
Who must comply?	Registrants	Registrants	Registrants Refillers	Registrants Users	Ag retailers Ag comm apps Ag custom bldr
Major Requirements	<ul style="list-style-type: none"> - DOT container design, construction & marking standards - Dispensing capability - Standard closures - Residue removal (99.99% removal) 	<ul style="list-style-type: none"> - DOT container design, construction & marking standards - One-way valves or tamper-evident devices - Vent, gauge & shutoff valve standards for large tanks 	<ul style="list-style-type: none"> - Registrants & refillers comply with specified conditions - Registrants develop & provide certain information - Refillers obtain & follow information; and clean, inspect & label containers before refilling them 	<ul style="list-style-type: none"> - Identify container as nonrefillable or refillable (<i>all</i>) - Statement to prohibit reuse and offer for recycling; batch code (<i>all nonrefillables</i>) - Cleaning instructions (<i>some nonrefillables</i>) - Cleaning instructions before disposal (<i>all refillables</i>) 	<ul style="list-style-type: none"> - Secondary containment structures (dikes) around large tanks - Containment pads for pesticide dispensing areas - Good operating procedures - Monthly inspections of tanks & structures
Compliance Date	Aug 17, 2009	Aug 17, 2011	Aug 17, 2011	Dec 17, 2010 Aug 17, 2011?	Aug 17, 2009

Which Products Must Comply?

- The **nonrefillable container, refillable container and repackaging requirements** apply to all pesticide products except for:
 - Manufacturing use products (MUPs);
 - Plant-incorporated protectants (PIPs); and
 - Antimicrobial products that are exempt.
- The **label requirements** apply to all pesticides except PIPs, pesticidal articles and pesticides in transport vehicles.
- There are some specific exemptions and partial exemptions.

What is the difference between nonrefillable & refillable containers?

- **Nonrefillable container:** designed & constructed for one-time use and not intended to be filled again with a pesticide for sale or distribution.
- **Refillable container:** intended to be filled with pesticide more than once for sale or distribution.

[§165.3.]



A nonrefillable container will have a label that says: “Nonrefillable container. Do not reuse or refill this container.” **These containers cannot legally be reused or refilled!**

New Requirements in 2011

If you repackage pesticides under contract/ agreement with a registrant, you must comply with the following requirements when you repackage a pesticide (& release it for shipment) after **August 16, 2011**:

1. Operational and recordkeeping requirements regarding **repackaging**;
2. Standards for your **stationary bulk tanks**; and
3. Standards for your **portable refillable containers** (i.e., minibulks, IBCs).

1. Repackaging Requirements

- Conditions for repackaging under a registrant's existing registration [**§165.70(b)**]
- Registrants develop and provide certain information to each refiller: [**§165.67(d), (f) & (g)**]
 - Written contract
 - Refilling residue removal procedure
 - Description of acceptable containers
- Requirements for independent (non-registrant) refillers [**§165.70(e)**]



1.A. Conditions for Repackaging

Under §165.67(b) & §165.70(b), a registrant may allow an independent refiller to repackage a pesticide under the registrant's existing registration if:

1. There is no change to the pesticide formulation;
2. The refiller's establishment is registered with EPA;
 - And the pesticide is repackaged at the establishment or at the site of an end user who intends to use/apply the pesticide
3. The registrant & refiller have entered into a written contract to repackage the pesticide and use the pesticide's label;
4. The pesticide is repackaged only into containers that comply with the refillable container requirements; and
5. The pesticide is labeled, with the only changes being the net contents and the refiller's EPA establishment number.

1.B. Refiller Requirements

An independent refiller must comply with all of the requirements in §165.70(e):

1. Register the establishment per §167.20;
2. Not change the formulation;
3. Repackage only into a refillable container on registrant's description of acceptable containers;
4. Can repackage any quantity; no container size limits;
5. Have the following items at the facility before repackaging:
 - Contract + label/labeling
 - Registrant's cleaning procedure and description of acceptable containers;
6. Identify the pesticide previously in the container;
7. Visually inspect the container;

(continued on next page)

1.B. Refiller Requirements

An independent refiller must comply with all of the requirements in §165.70(e):

8. Clean the container if necessary
 - Must be cleaned between uses unless all tamper-evident devices and one-way valves are intact and filled with the same or a very similar product;
9. Ensure the container is properly labeled;
10. Maintain records of the information from the registrant; and each time the container is refilled, record the date, serial number/code of the container; & pesticide;
11. Maintain records required by Part 169;
12. Report production as required by Part 167;
13. Stationary containers must meet certain standards; and
14. You may be required to comply with the federal containment standards.

2. Standards for Stationary Tanks

Stationary tanks (holding at least 500 gallons & at the facility of a refiller operating under contract with a registrant) must:

- Be durably marked with a serial number/identifying code;
- Meet integrity/strength standards;
- Have a vent;
- Have a shut-off valve on any connection below the normal liquid level; and
- Not have an external sight gauge.

[\$165.45(d) & (f)]



3. Portable Refillable Containers

You must repackage into portable refillable containers that:

- Comply with at least DOT Packing Group III standards;
- Are durably marked with a serial number/identifying code;
- Have a tamper-evident device, one-way valve or both on each opening other than a vent; and
- Are on the registrant's list of acceptable containers.

[§165.45(a)-(e); §165.70(e)(3)]



3.A. DOT/United Nations Marking

- All portable refillable containers must meet at least the DOT packing group III standards.
- §165.45(a): A pesticide product that does not meet the definition of a hazardous material in 49 CFR 171.8 must be packaged in a refillable container that, if portable, is designed, constructed, and marked to comply with the requirements of 49 CF 173.4, 173.5, 173.6, 173.24, 173.24a, 173.24b, 173.28, 173.155, 173.203, 173.213, 173.240(c), 173.24(d), 173.241(c), 173.241(d), Part 178 and Part 180 that are applicable to a Packing Group III material...
- §165.45(b): If it is a DOT hazardous material, must comply with applicable DOT requirements.

3.A. DOT/United Nations Marking

- All portable refillable containers must meet at least the DOT packing group III standards. [§165.45(a) & (b)]
- Generally, can determine this by the UN/DOT marking, such as: un 31HA1/Y/04/01/USA/etc.
- Important: look for UN symbol and X, Y or Z
 - X = meets PG I stds (most stringent)
 - Y = meets PG II stds
 - Z = meets PG III stds
- The DOT standards that are incorporated in §165.45(a) authorize certain “portable tanks” that comply but do not require the UN marking.
 - Rely on the registrant’s description of acceptable containers.
- Also includes ongoing maintenance and testing (e.g., pressure test).

3.A. DOT Requirements



3.A. DOT Requirements



3.B. Serial Number/Identifying Mark

Each refillable container must be durably marked with a serial number or other identifying code. [§165.45(d)]

Durable marking includes an adhesive label if it's securely attached = can reasonably be expected to remain affixed during the foreseeable conditions and period of use. [§156.10(a)(4)]



3.C. Tamper-Evident Device/One-Way Valve

- For portable refillable containers holding liquid pesticides, each opening other than a vent must have a **one-way valve, a tamper-evident device, or both.**
- A vent must be designed to **minimize the amount of material** that could be introduced into the container through it.

[§165.45(d)]



3.C. Tamper-Evident Device/One-Way Valve

- **One-way valve** means a valve that is designed and constructed to allow virtually unrestricted flow in one direction and no flow in the opposite direction, thus allowing the withdrawal of material from, but not the introduction of material into, a container.
- **Tamper-evident device** means a device which can be visually inspected to determine if a container has been opened.

[\$165.3]

3.C. Tamper-Evident Device/One-Way Valve

- The valve at the bottom of this minibulk is not a one-way valve. The end user has to break the tamper-evident device to remove pesticide from the minibulk through this valve.
- This minibulk **complies with the refillable container regs**; it has a tamper-evident device.
- However, when the minibulk is returned, **the refiller must clean the minibulk**, even if he is refilling it with the same pesticide product. [See§165.70(g) & (h).]



3.D. Registrant's Description of Acceptable Containers

- A refiller must repack pesticide only into a refillable container that is identified on the description of acceptable containers for that pesticide product provided by the registrant.

[§165.70(e)(3)]

Key New Requirements for Refillers

- Repackage only into compliant refillable containers. For portable containers, this means the container:
 - Is DOT compliant;
 - Is marked with a serial number/identifying code;
 - Has tamper-evident devices and/or one-way valves; and
 - Is on the registrant's description of acceptable containers.
- Clean container between uses unless all tamper-evident devices & one-way valves are intact and you are refilling with the same or a very similar product.
- Get the cleaning procedure & description of acceptable containers from the registrant for each product.
- For each refill, record the date, serial number/code of container; and pesticide.

Portable Refillable Containers: Checklist

EPA Pesticide Container and Containment Rule

REFILLABLE CONTAINER REQUIREMENTS

For Registrants, Agricultural Retailers, Distributors, Commercial Applicators and Custom Pesticide Blenders

Purpose of the Rule

U.S. EPA published the final Pesticide Container and Containment (PCC) Rule in August 2006.

The Rule seeks to provide sound stewardship practices and national consistency for pesticide labeling, container design, repackaging and storage.

This fact sheet discusses critical aspects of the Rule that affect selection, maintenance and use of refillable containers for pesticides.

Who Must Comply

The Rule is a federal regulation that affects all states, regardless of existing state regulations. Parts of the Rule affect retailers, commercial applicators, custom blenders, refillers (both retailers and distributors) and registrants.

Enforcement and Penalties

Enforcement will primarily be conducted by the U.S. EPA region via state pesticide control officials (such as the State Department of Ag. or State Environmental Protection Agency). These agencies have the authority to assess monetary penalties.



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An Overview of Refillable Rules

After August 16, 2011, all portable refillable containers must meet the following requirements. After this date, many existing portable refillable containers will be obsolete if they cannot meet these requirements.

- One-way valves or tamper evident device on opening (other than vents) is required. Contact equipment vendors about options.
- Containers must have a unique method of identification such as a serial number or other ID code.
- Must meet DOT design, construction, marking.
- No limits on size, except those placed by registrants, of the refillable container.
- Must be cleaned between uses unless tamper evident one-way valves are intact and filled with same product.
- Containers must be on an approved list from the registrant.
- Must have registrant's cleaning instructions and repackaging authorization on hand.
- EPA Est. # and net contents must be on the product label affixed to the tank.
- Container integrity is the responsibility of both refiller and the registrant.
- Records must be kept for each inspection and fill.

What You Should Do NOW

Use the check sheet on the back to evaluate each refillable container. Identify which containers need to be phased out, and which must be modified prior to August 2011. Study the rule since there are other parts that may affect your business.

To learn more, attend the National Agronomic EHS School in Bloomington, IL, August 18, 2009. <http://www.nasda.org/ehs>. This year's school program will include hands on inspection of mini-tanks.

Pesticide Refiller Checklist for Portable Refillable Containers

The answer to each question for every container should be "Yes"; otherwise, **FIX IT before August 16, 2011.**

All Refillable Containers

1. For containers holding liquids, all openings (except vents) have one-way valves, tamper evident devices or both?
2. Does the container have a unique serial number or other identifying mark? Note the unique number for container being checked here: _____ . Does each container have its own checklist?
3. The container will not leak under normal transport conditions?
4. The container is visually inspected before reuse and will not be reused unless it is free from incompatible residue, ruptures or damage which reduces structural integrity?
5. The container is strong enough to undergo normal handling without damage?
6. The registrant has provided you (the refiller) a description of acceptable containers for the products you refill?
7. The container is compatible with the pesticide? (Use registrant's list of approved containers to verify.)
8. The container can be closed in compliance with container manufacturer's written instructions?
9. Pesticide residue or spilled material will not be on the outside of the container after filling?
10. The registrant has provided you (the refiller) with a contract allowing you to use the registrant's label?
11. The registrant has provided you (the refiller) with written residue removal procedures (cleaning instructions)?

Containers less than 119 gallons or 882 lbs

12. Is container marked to indicate it meets, at least, US DOT PG III / UN authorization standards? Combination packages larger than 3 liters or 3 kg, and all single packages require UN authorization.
13. Is the container as it was when tested & authorized? If container is altered, retesting is required?
14. Are drums authorized for reuse? Drums are only authorized when they are marked in a permanent manner with the nominal (metal) or extension (plastic) thickness of the packaging material.

Other rules exist. For instance, liquid containers must not be heated full at 130°F. Specific gravity of liquids must not exceed the marked limit (adjust for PG I & II). Combination packages with liquids must have closures upright. Inner packages must be cushioned with compatible materials. Paper, plastic fiber or foil packaging are not authorized for reuse.

Containers greater than or equal to 119 gallons or 882 lbs

Includes portable tanks and Intermediate Bulk Containers (IBCs)

15. The container has "UN" authorized markings indicating it meets, at least, US DOT PG III? If not marked, the manufacturer has verified it meets, at least, US DOT PG III? DOT Specs: 31, 36, 37 and 69 portable tanks; IMO type 1, 2 and 3, IM 101 and IM 102 portable tanks; UN portable tanks; marine portable tanks conforming to 46 CFR part 64; and non-DOT specification portable tanks are authorized for many products.
16. If container is UN authorized or a US DOT Specification tank, then has it been leak-proof tested, externally inspected and marked every 2.5 years, and has it been internally inspected & marked at least every five years and are records available for the testing?

Other rules exist. For instance, liquids may not exceed 98% of capacity when heated to 115°F. Minimum weight marked on inner is exceeded. Fiberglass, fiberglass or wooden IBCs must be visually inspected before each fill.

This checklist does NOT cover all aspects of the Pesticide Container & Containment Rule. The EPA summary and Rule is available at: www.epa.gov/pesticides/toxicology/containers.htm

Important !!!



Service Containers

- Situation: A retailer fills a refillable 15 gallon shuttle (properly labeled, etc...) with a pesticide from a 110 gallon mini-bulk. This "dispensing" occurs inside a warehouse in an area well away from any doors or walls. The 15 gallon shuttle is then transported to the field and poured into a spray rig and subsequently sprayed on a farmer's field. The retailer is paid for the pesticide and paid for the spray application.

Service Containers

- In this case -- where the applicator is the one who transfers the pesticide for the purposes of that applicator applying the pesticide -- the 15-gallon shuttle is considered a "service container."
- **A service container is defined as "any container used to hold, store, or transport a pesticide concentrate or a pesticide use-dilution mixture, other than the original labeled container in which the product was distributed or sold, the measuring device, or the application device."**

Service Containers

- EPA does not currently regulate service containers although we do believe that it is a good management practice to ensure that the contents of service containers are identified and that the label of a pesticide product that is in a service container is available to the person handling and/or applying the pesticide.

Service Containers

- However, if the retailer fills the 15-gallon shuttle, transports it to the field and the farmer (or someone else) applies the pesticide, the situation is different. In this case, the 15-gallon shuttle is a "refillable container" that is regulated by the container-containment regulations. (The regulations define "refillable container" as a container that is intended to be filled with pesticide more than once for sale or distribution.")

Service Container

- In this case, the "dispensing" does meet the criteria in §165.82(a)(4) of "Agricultural pesticides are dispensed from any other container for the purposes of refilling a refillable container for sale or distribution" because the 15-gallon shuttle is being used to sell or distribute the pesticide and because the 110-gallon minibulk is "any other container", i.e., a container other than a 500-gallon stationary pesticide container or a transport vehicle.

Service Containers

- In addition, the 15-gallon shuttle must comply with the refillable container requirements in the container regulations (after August 16, 2011) and must be properly labeled in compliance with EPA regulations

Service Containers

Southern Crop Production Assn.

- HEADLINE \geq 121 Gal BASF RQ, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (NAPHTHALENE), 9, UN3082, PG III, ERG 171
- QUADRIS RIDOMILGOLDSL {RIDOMIL} \geq 119, < 3500 Gal SYNG COMBUSTIBLE LIQUID, N.O.S. (TETRAHYDROFURFURYL ALCOHOL), NA1993, PG III, ERG 128

For More Information

Environmental Protection Agency (EPA)

- <http://www.epa.gov/pesticides/regulating/containers.htm>
- Nancy Fitz, 703-305-7385; fitz.nancy@epa.gov

American Agronomic Stewardship Alliance (AASA)

- <http://www.aginspect.org/USEPA.html>

CropLife America (CLA)

- <http://www.croplifeamerica.org> & www.croplifefoundation.org

Mid America CropLife Association (MACA)

- <http://www.maca.org/edu>

Pesticide Stewardship: See Container Handling for inspection video

- <http://pesticidestewardship.org/Pages/default.aspx>

State Inspector Training

- <http://pirt.pested.psu.edu/resources>