

Tetrachlorethylene (Use in Dry Cleaning and Reporting Requirements) Regulations

PERC Pointer #5

Secondary Containment Systems



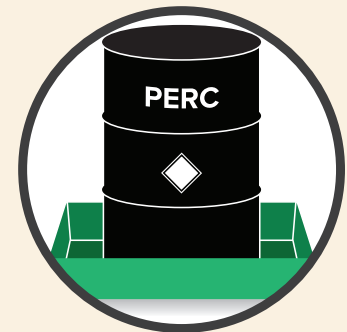
Prevent Spills

Is Your Secondary Containment System Large Enough?

Your secondary containment system must be able to hold a volume greater than or equal to 110% of the largest tank or storage container and cover at least the entire surface under each dry-cleaning machine, tank or container.

To determine if your secondary containment system is large enough, you will need to calculate:

1. The **volume of your largest container**
2. The **volume of your secondary containment system**



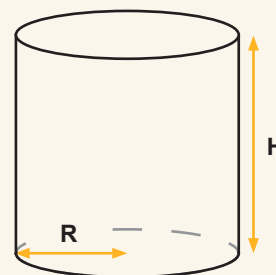
Volume of a Cylinder

$$\text{Volume} = \text{Height} \times \pi \times \text{Radius}^2$$

H = height of the cylinder

π (Pi) = 3.14

R = radius of the base circle



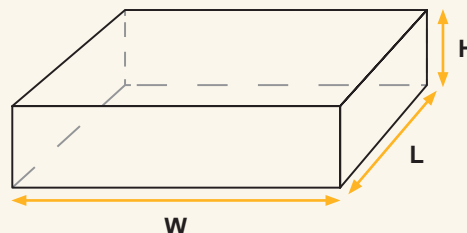
Volume of a Box

$$\text{Volume} = H \times L \times W$$

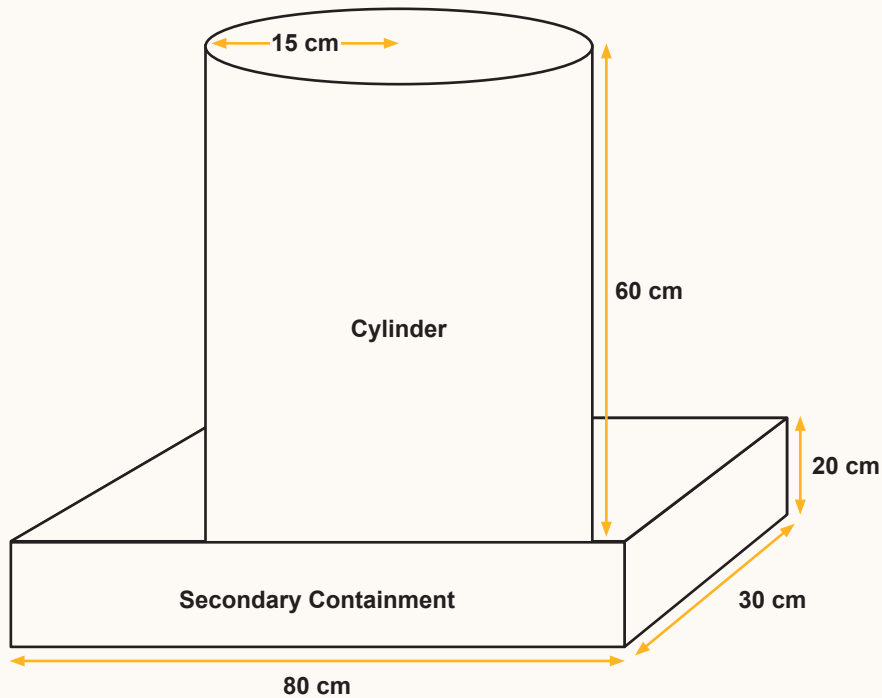
H = height of the box

L = length of the box

W = width of the box



Example Calculations



Cylinder Size:

Height (H) = 60 cm*

Radius (R) = 15 cm

Cylinder Volume

$$= H \times \pi \times R^2 = H \times \pi \times R \times R$$

$$= 60 \text{ cm} \times 3.14 \times 15 \text{ cm} \times 15 \text{ cm}$$

$$= 42\,390 \text{ cm}^3 [1000 \text{ cm}^3 = 1 \text{ Litre}]$$

$$= 42.4 \text{ Litres}$$

*Use centimetres or inches, be careful not to mix measurements

Secondary Containment Size:

Height (H) = 20 cm

Length (L) = 80 cm

Width (W) = 30 cm

Secondary Containment Volume

$$= H \times L \times W$$

$$= 20 \text{ cm} \times 80 \text{ cm} \times 30 \text{ cm}$$

$$= 48\,000 \text{ cm}^3 [1000 \text{ cm}^3 = 1 \text{ Litre}]$$

$$= 48.0 \text{ Litres}$$

Will your secondary containment hold 110% of the volume of the container (cylinder)?

Divide Secondary Containment Volume by Cylinder Volume

$$48.0 \text{ L} \div 42.4 \text{ L} = 1.13 \times 100\% = \mathbf{113\%}$$

113% is greater than 110% (Yes!)

For more information, please see our website: www.canada.ca/perc-dry-cleaning

Please contact your regional Environment and Climate Change Canada office if you have any questions or concerns:

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Environment and Climate Change Canada undertakes regular inspections in order to verify compliance with the requirements of the *Canadian Environmental Protection Act, 1999* and its regulations. Investigations are conducted when there are reasonable grounds to believe that a violation has occurred.

For further information, consult the Compliance and Enforcement Policy for CEPA at:

www.canada.ca/en/environment-climate-change/services/canadian-environmental-protection-act-registry/publications/compliance-enforcement-policy.html

This document is neither an official version nor a substitute for the *Canadian Environmental Protection Act, 1999* or the *Tetrachloroethylene (Use in Dry Cleaning and Reporting Requirements) Regulations*. Please refer to the Regulations to determine your legal obligations.



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