]

**PSC 114.317** Outdoor location of oil–insulated padmounted transformers near buildings. [Follows NESC 316, p. 236] (Addition) Add the following section:

# Outdoor location of oil-insulated padmounted transformers near buildings.

#### A. Noncombustible and Combustible Walls

For the purposes of this section, combustible walls are walls of Type No.V buildings as determined by Wisconsin Building Code (Construction Classification IBC Chapter 6). All other walls are considered to be non–combustible.

## B. Noncombustible Walls

Padmounted oil-insulated transformers may be located directly next to noncombustible walls if the following clearances are maintained from doors, windows and other building openings.

1. Padmounted oil—insulated transformers shall not be located within a zone extending 6.1 m (20 ft) outward and 3.0 m (10 ft) to either side of a building door. See Figure PSC 114–317B1.

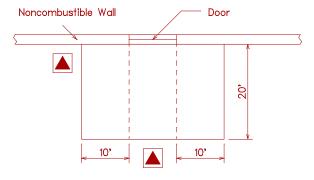
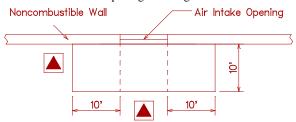


Figure PSC 114-317B1.

2. Padmounted oil—insulated transformers shall not be located within a zone extending 3.0 m (10 ft) outward and 3.0 m (10 ft) to either side of an air intake opening. Such transformers may be located within said zone beneath an air intake opening provided there is not less than 7.6 m (25 ft) diagonal separation between the transformer and said opening. See Figure PSC 114–317B2.

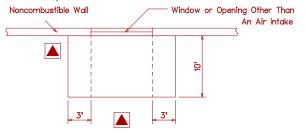


2

Figure PSC 114–317B2.

3.a. Padmounted oil—insulated transformers shall not be located within a zone extending 3.0 m (10 ft) outward and 0.9 m (3 ft) to either side of a building window or opening other than an air intake. See Figure PSC 114–317B3a.

Exception: This does not apply to a glass block or fire window meeting the requirements of the Wisconsin Commercial Building Code (Fire Window IBC Chapter Section 714.3).



3

Figure PSC 114-317B3a.

3.b. For second story windows, the transformer shall not be located less than 1.5 m (5 ft) from any part of the window. See Figure PSC 317B3b.

Exception: This does not apply to a glass block or fire window meeting the requirements of the Wisconsin Commercial Building Code (Fire Window, IBC Chapter Section 714.3).

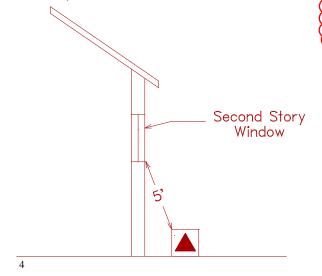


Figure PSC 114-317 B3b.

# C. Combustible Walls

- 1. Padmounted oil—insulated transformers in sizes up to and including 100 kVA shall be located according to the provisions set forth in Subsection B for noncombustible walls.
- 2. Padmounted oil-insulated transformers in sizes above 100 kVA shall be located a minimum of 3.0 m (10 ft) from the building wall in addition to the clearances from building doors, windows and other openings set forth for noncombustible walls. Also, a sump shall be installed for transformers in size exceeding 500 kVA if the immediate terrain is pitched toward the building.

#### D. Barriers

If the clearances specified in PSC 114.317 cannot be obtained, a fire-resistant barrier may be constructed in lieu of the required separation. The following methods of construction are acceptable:

#### 1. Noncombustible Walls

The barrier shall extend to a projection line from the corner of the padmounted transformer to the furthest corner of the window, door or opening in question. The height of the barrier shall be 0.3 m (1 ft) above the top of the padmounted transformer. See Figure PSC 114–317D1.

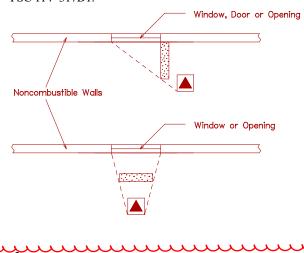
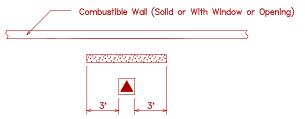


Figure PSC 114-317D1.

# 2. Combustible Walls

The barrier shall extend  $0.9~\mathrm{m}$  (3 ft) beyond each side of the padmounted transformer. The height of the barrier shall be  $0.3~\mathrm{m}$  (1 ft) above the top of the transformer. See Figure PSC 114-317D2.



6

## Figure PSC 114–317D2.

### E. Fire Escapes

- 1. Padmounted oil—insulated transformers shall not be located within a zone extending 6.1 m (20 ft) outward and 3 m (10 ft) to either side of the point where a fire escape meets the ground. See Figure PSC 114–317E1.
- 2. Padmounted oil—insulated transformers located beneath fire escapes shall have a vertical clearance of not less than 3 m (10 ft)