



New Castle County Government Center
87 Reads Way
New Castle, DE 19720
Department of Land Use - Building Inspections

Date: **May 5, 2010**
Subject: **Rooftop guards for Mechanical equipment**
References: **2006 International Existing Building Code**
2006 International Mechanical Code

This Staff Code Interpretation is intended to be used to clarify Sections 601.2 in the International Existing Building Code and 304.10 of the International Existing Building Code.

Below is the exact text from the sections of the codes in question:

Section 601.2, Conformance. An existing building or portion thereof shall not be altered such that the building becomes less safe than its existing condition.

Section 304.10, Guards. Guards shall be provided where appliances, equipment, fans, or other components that require service and roof hatch openings are located within 10 feet of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches above the floor, roof or grade below. The guard shall extend not less than 30 inches beyond each end of such appliances, equipment, fans, components, and roof hatch openings and the top of the guard shall be located not less than 42 inches above the elevated surface adjacent to the guard. The guard shall be constructed so as to prevent the passage of a 21-inch-diameter sphere and shall comply with the loading requirements for guards specified in the International Building Code.

Question: An existing roof top unit (RTU) was replaced due to failure of the unit. The existing RTU was in place for a number of years and passed any required inspections at the time. The new RTU is of similar size and capacity as the unit it replaces. Therefore, there is not a structural issue. The existing duct work and other building interior components were not touched. The RTU is more than 30 inches above grade and within 10 feet of the roof edge. This condition existed with the prior unit also. There is not any guardrail. Is a guardrail required to be placed for the RTU replacement if a guardrail did not exist prior?

STAFF CODE INTERPRETATION

Answer: Replacing an existing rooftop unit does not, in our opinion, require the installation of a guard. Installing a new rooftop unit where an existing rooftop unit was located does not require a new installation of a guard due to the requirements in Section 304.10 of the IMC. Section 601.2 of the IEBC, for a Level 1 alteration, states that the building must not become less safe than its existing condition. The existing condition is that there was no guard located where the existing rooftop unit was installed. Of course, this is assuming that there was never a guard required to be installed when the original rooftop unit was installed. It is important to note that over the years the requirement for a guard has changed to the current requirement for 10 feet from the roof edge.

NCC Stance: If the Code in place at the time of the original installation would have required a guard, then a guard shall be required to be installed. If the Code in place at the time of the original installation did not require a guard, and the new installation does not make the existing situation less safe (i.e. by installing a larger unit), then no guard is required to be added.

Code Updates: The requirements discussed in this code opinion are unchanged by the adoption of the 2015 IPC and 2015 IEBC, but additional language has now been added to allow for the use of permanent fall arrest/restraint devices as an additional design option.

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Code Official