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**FIRE PREVENTION AND BUILDING SAFETY COMMISSION**  
**Department of Homeland Security****Written Interpretation of the State Building Commissioner****Interpretation #: CEB-2021-22-2014 1013.2****Building or Fire Safety Law Interpreted****675 IAC 13-2.6 Indiana Building Code, 2014 Edition**

**Section 1013.2 [GUARDS] Where required.** *Guards* shall be located along open-sided walking surfaces, including *mezzanines*, *equipment platforms*, *stairs*, *ramps* and landings that are located more than 30 inches (762 mm) measured vertically to the floor or grade below at any point within 36 inches (914 mm) horizontally to the edge of the open side. *Guards* shall be adequate in strength and attachment in accordance with Section 1607.8.

**Exception:** *Guards* are not required for the following locations:

1. On the loading side of loading docks or piers.
2. On the audience side of *stages* and raised *platforms*, including steps leading up to the *stage* and raised *platforms*.
3. On raised *stage* and *platform* areas, such as runways, *ramps* and side *stages* used for entertainment or presentations.
4. At vertical openings in the performance area of *stages* and *platforms*.
5. At elevated walking surfaces appurtenant to *stages* and *platforms* for access to and utilization of special lighting or equipment.
6. Along service pits not accessible to the public.
7. In assembly seating where *guards* in accordance with Section 1028.14 are permitted and provided.

**Issue**

Whether Section 1013.2 of the 2014 *Indiana Building Code* (IBC) requires guards at the open-sided elevated hitting bays in multi-story golf driving ranges.

**Interpretation of the State Building Commissioner**

Yes, Section 1013.2 of the 2014 IBC does require guards at the open-sided elevated hitting bays in multi-story golf driving ranges.

**Rationale**

None of the guard exceptions provided under IBC Section 1013.2 are matches for elevated open-sided hitting bays in multi-story golf driving ranges. Only Exception 3 appears general enough in application to be a potential fit, but it ties the allowable open sides specifically to "stages" and "platforms," which are code-defined terms. While those definitions include the rather broad term "entertainment" as purpose for the raised area, it is clear from the definition's context that the code expects the users of the platform to be there for the purpose of providing demonstration or entertainment for an audience, and in so doing, they accept an increased risk of falling from the raised area. This is not an accurate description of the occupants and purposes of these hitting bays.

Since exemption from the requirement for guards is not found among the listed exceptions, exemption, if any, must be found in the body of the section itself.

Guards are required at the open sides of walking surfaces when the difference in elevation between the walking surface and the adjacent grade or floor is greater than 30 inches, at any point within 36 horizontal inches from the edge of the walking surface. Therefore, the focus of question of applicability must be what occurs in that space between the edge of the walking surface and a point 36 horizontal inches beyond. Is that space either grade or floor, and if it is one or the other, is it more or less than 30 vertical inches below the walking surface?

The term "grade" is defined in the code, at least within the context of the ground plane (see IBC Section 202 "GRADE PLANE"). As the term appears in that definition, and as it is used consistently throughout the code, it is taken to mean the ground, level or sloped. Because of this commonly used meaning, and the fact that the installation in question occurs on the upper stories of multi-story driving ranges, we can safely state that 1) the mesh net installed adjacent to the walking surface of the elevated hitting bays is not grade, and 2) actual grade will be more than 30 inches below the walking surface of the elevated hitting bays.

Since the distance to grade from the walking surface is too great to be a qualifying characteristic for exemption, we must then consider whether the space next to the walking surface can be reasonably considered a floor instead of grade. The design of the facility, as it has been described to us, does not simply leave this space void,

with nothing to prevent a sheer drop to grade. Rather, as mentioned above, a safety net assembly is installed here, presumably consisting of some type of suitable mesh material supported by structural elements, the system being strong enough to intercept and support an occupant who might fall from the walking surface. If we may assume this safety net is no more than 30 inches below the elevation of the walking surface, the question of applicability of the guard requirements rests with whether this net assembly may be reasonably considered a "floor." (We stipulate here that the net surface of the safety device eliminates it from practical consideration as a "walking surface" itself, to avoid the guard requirement applying at the net's own edge.)

While the solitary word "floor" is not defined in the code, it appears in the Chapter 2 definitions of floor area, both gross and net. In these cases, the definition is based on the concept of usable spaces ("FLOOR AREA, GROSS") and occupiable spaces ("FLOOR AREA, NET"). A space constructed as nothing more than a safety precaution to intercept a fall is clearly outside the intention to use or occupy an area by persons in their typical interactions with the structure. In examining commonly used meanings for the term, Merriam-Webster's online dictionary (<https://www.merriam-webster.com/dictionary/floor>, last consulted June 7, 2021) defines "floor" as:

- 1: the level base of a room;
- 2a: the lower inside surface of a hollow structure (such as a cave or body part);
- 2b: a ground surface;
- 3a: a structure dividing a building into stories;
- 3b: the occupants of such a floor;
- 4: the surface of a structure on which one travels;
- 5a: a main level space distinguished from a platform or gallery;
- 5b: the specially prepared or marked area on which indoor sports events take place.

A safety net cannot be considered a floor under any of these definitions, nor, as we have seen, does it meet the definition of grade. Its presence, even though it is fewer than 30 vertical inches below the adjacent walking surface, does not provide exemption from the guard requirements of IBC Section 1013.2.

Finally, we must add that we understand and do not question the potential problems associated with requiring a guard immediately in front of a driving range hitting area. However, we must state that an exemption from the code's guard requirements cannot depend solely on the fact that these types of facilities would be hampered in their use (or even made more dangerous, arguably) by compliance with those requirements. A new design should not be automatically exempted from compliance with a standing requirement for the sole reason that the design cannot practically or safely coexist with that requirement. This may be a persuasive argument for altering the design or altering future codes, or both, but it cannot factor in an interpretation of a current requirement, which by statute must be consistent with the enacted and adopted building and fire safety laws. The design circumstances requiring guards are clearly stated, and the proposed safety net does not provide exemption from those requirements.

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