



Means of Egress: Fire Exit Hardware Details

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Learning Objective: The student shall be able to identify a missing component from a required fire assembly.

Coffee Break Training 2009-47, “Fire Resistive Assemblies,” explained that “assemblies” are a **combination of materials put together in a specific way** to achieve fire-resistance ratings.

Today’s Coffee Break is another illustration of that important point. When you look closely at the photograph, you will see that the exit hardware strike plate is missing from the door frame. The strike plate is an important component in this assembly because the latch bolt in the exit hardware rests in the strike plate to hold this door closed.

While it may seem to make sense to allow an egress door to swing freely, in this example, the fire exit hardware is an important part of the building’s fire-resistant construction. (See Coffee Break Training 2007-43 for the difference between “panic” and “fire exit” hardware.) This door opens from an occupied room into a 2-hour fire-resistance-rated exit enclosure, and is in the direct path from the building to outdoors.

Should a fire occur in the room, the increased air pressure caused by the rising temperature (Gay-Lussac’s or Charles’ Law) could push this door open and enable products of combustion to contaminate the stair enclosure. When the latch bolt is held in place by a strike plate, this failure is less likely to occur.

Inspector’s should always look closely at all the components of a fire assembly to confirm they are in place, and where possible, test the assembly to verify it will close and latch as it is designed to do. If important components are missing or the fire assembly is compromised, that information should be documented and reported to the building owner or occupant for repair.

For additional information on the maintenance of fire-resistive assemblies, refer to *International Fire Code*, Chapter 7, or *National Fire Protection Association 1, Uniform Fire Code*, Chapter 12.



The strike plate is missing from this exit hardware device, compromising its ability to hold the door closed.

