# fast facts

advancing safety, health, and workplace rights in the legislative branch



August 2008

## Fire Doors

Keeping You Out of Harm's Way

Enclosing areas with fire barriers — fire doors, walls, ceilings and floors — is the best means of containing fire. Fire barriers play an integral role in managing a fire by interrupting the spread of smoke, toxic gases and the fire itself from one fire zone to another.

#### What is a Fire Door?

Not all doors are fire doors. The Life Safety Code stringently regulates fire doors and their closure, precisely because of their importance as passive fire protection devices.

Fire doors are composed of a combination of materials, including steel, gypsum and other fireresistant materials. Some fire doors are equipped with windows, which must be subjected to product certification. Fire-resistant

windows may include wire mesh glass, liquid sodium silicate (or "water glass") between two window panes, ceramic glass or borosilicate glass.

Every approved fire door will have an assigned fire rating determined by a standard fire endurance test. The fire rating is stated on the door's label, and indicates the door's ability to resist the passage of fire and hot gases. The fire rating of the door is determined by a standardized destructive fire endurance test on a sample door.

Fire doors are fundamental to the integrity of fire barriers, because any time there is an access portal (such as a doorway) to a compartment, a fire barrier is broken temporarily. To minimize the break in protection and the spread of fire, smoke and toxic gases, fire doors must be self-closing and have proper latching devices.



Fire door improperly held open by tying it to a wall.



Electromagnetic hold-open device. This is the only means by which a fire door may be held open.

#### When Are Fire Doors Needed?

In general, fire doors are needed whenever a door opening is present in a fire wall. Fire doors are also needed when a door has an "Exit" sign on or near it, when a door leads into exit stairwells and horizontal exits, or when a door leads to a hazardous area such as a room used to store flammable liquids.

#### Potential Fire Door Hazards

Fire doors are often blocked open for the convenience of employees and visitors, creating a significant fire hazard for all building occupants because of the break created in the fire barrier. Fire doors should never be tied open or held open by unapproved devices, such as door wedges or blocks. Doors that are designed as fire exit doors can be held open, for example, by an electromagnetic hold-open device that automatically releases when building smoke control or fire alarms are activated.

Even when closed, fire doors should never have their latches taped over. During a fire, if latches are taped over, hot gases could easily build up enough pressure to blow the fire doors open, rendering them ineffective.

A fire door and its frame can often be identified by a plate affixed to each, indicating the laboratory approval and the duration of fire rating. Painters must avoid painting over these plates, as this could prevent future determination of whether or not the doors and frames are appropriately fire-rated.



Fire door latch improperly taped to hold the door open

### fast stats

- OSHA regulations require that fire doors not be obstructed, locked or held open unless equipped with a device that releases the door, such as an electromagnetic hold-open device, upon activation of a fire alarm panel. (29 CFR § 1910.36(d))
  - Fire doors must be certified by an OSHA-recognized testing laboratory.

    The laboratory's certification label, typically on the door edge,

    must state the door's fire rating.

    (29 CFR § 1910.36 (a) (3))



Peter Ames Eveleth General Counsel

Mary-Margaret Smith *Editor* 

If you have any questions, please do not hesitate to contact the Office of Compliance:

Room LA 200, John Adams Building 110 Second Street, SE Washington, D.C. 20540 t/ 202-724-9250 tdd/ 202-426-1912 f/ 202-426-1913 The Office of Compliance advances safety, health, and workplace rights in the U.S. Congress and the Legislative Branch. Established as an independent agency by the Congressional Accountability Act of 1995, the Office educates employees and employing offices about their rights and responsibilities under the Act, provides an impartial dispute resolution process, and investigates and remedies violations of the Act.

Download the entire Fast Facts suite at http://www.compliance.gov

This information does not constitute advice or an official ruling of the Office of Compliance or the Board of Directors and is intended for educational purposes only. For further information, please refer to the Congressional Accountability Act (2 U.S.C. 1301 et seq.) and the regulations issued by the Board, or you may contact the Office of Compliance.