

Fire door inspection, testing and maintenance

Introduction

To ensure successful performance of fire doors, all fire doors must be properly installed and maintained. The National Fire Protection Association (NFPA) Standard 80, *Standard for Fire Doors and Other Opening Protectives*, provides detailed information about the proper design, installation and maintenance of fire doors. The following information provides additional detail Travelers believes is important on inspection, testing and maintenance of fire doors.

Installation of fire doors

Proper installation, in accordance with manufacturer's specifications and NFPA Standard 80, is vital to successful performance of a fire door. This includes:

- Metal shielding, door casings, door guides and rails, counterbalances, bumpers (door stops for sliding doors), pulleys and cabling
- Proper temperature-rated fusible links
- Protective barriers, such as metal railings and guard posts (steel pipe filled with concrete), shall be installed around fire doors to protect them from the impact of vehicular traffic (industrial forklifts, motorized carts, etc.) and other accidental damage

Comprehensive fire door inspections, testing and maintenance program

Regular inspection, testing and maintenance of fire doors should be part of a comprehensive facility maintenance program. A good program should involve all employees encourages communication so workers will feel comfortable in reporting fire door damage to their supervisor or to a designated individual.

Management must quickly repair damage or replace a fire door because they are considered the last line of defense in the event of a major fire.

The first step in establishing a written fire door maintenance program is to identify and label all fire doors in the facility, including firewalls or fire barrier walls and their respective ratings. Inventory the fire doors by number, including their location, type (sliding, overhead, swinging, etc.) and rating for use in developing a fire door inspection, testing and maintenance inspection form.

At the end of this document is an example of a form that can be used "as is" or modified to meet the needs of your facility.

Weekly inspection

During a visual inspection, the fire door and all associated devices should appear to be in good repair. Fusible links shall be properly located at the top of the opening or at the projecting arm on sliding fire doors and near the releasing mechanism for overhead fire doors and at the ceiling level on each side of the opening.

Fusible links shall not be tied, painted, missing, or corroded. Closing devices that rely on electronic detection should be energized and in good working order. Rails, guides and pulleys shall be clean and well lubricated.

The weekly visual check of the fire doors shall include the following:

1. A visual check of the fire door and all associated hardware for damage – metal shielding, door casings, door guides and rails, counterbalances, bumpers, pulleys and cabling, fusible links, covered baffles of overhead fire doors
2. A visual check of guides and pulleys to ensure they are clean and lubricated
3. A visual check for obstructions – storage or wedges that would hinder or prevent a fire door from properly operating or fully closing
4. A visual check for combustible storage or construction within the vicinity of the fire wall opening – there should be no combustible storage near the door opening as the fire could spread through the opening before the door closes automatically

Fire door inspection, testing and maintenance

All damage should be noted on the appropriate form and any significant problems addressed immediately.

Maintenance

Maintenance of fire doors shall include manual closing of the fire door and cleaning and lubricating of rails, guides and pulleys.

Check the open spaces around the fire doors during closing to ensure the spacing at the bottom of the fire door does not exceed those listed in NFPA 80 "Standard for Fire Doors and Other Opening Protectives" – Section 4.8.4. This standard is ¾ inches or less for fire doors with bottom sills and 3/8 inches or less from the bottom of doors that have their bottoms more than 38 inches above the finished floor.

The frequency of maintenance depends on the environment in which the doors exist. Maintenance rarely needs to be done on more than a monthly basis.

Annual "drop" or performance test

Perform a full operational "drop" or performance test at least once a year. Operational testing of the fire door should simulate actual conditions. Testing may include disconnecting the fusible link, or activating an automatic detection device, such as a smoke detector, waterflow alarm or manual pull station to release any automatic locking device or magnet releases.

During testing the governing assembly of overhead fire doors and spring tension should be checked and adjusted as needed prior to the re-setting of the overhead fire door.

Do not use heating devices or cutting of fusible lines to release the fire door. The purpose of the "drop" or performance test is to check the proper operation of the fire door, to make sure that it will operate automatically in the event of a fire: freely sliding, rolling or swinging shut and properly protecting the firewall or fire barrier wall opening.

Fusible links need not be tested, but should be replaced if they are painted, corroded or otherwise damaged.

After the successful performance test has been completed, you should lubricate the moving parts and follow the manufacturer's instructions for resetting the door. Ideally, an authorized agent of the manufacturer should reset the door.

If a manufacturer's representative does not reset the fire door, the door should be reset and then retested to verify proper resetting procedures have been used. Once successful operation has been verified the door can be reset and made operational.

Note: The sample inspection form begins on the following page.

For more information, log in to the Risk Control Customer Portal at travelers.com/riskcontrol. (Need help? Read our [Registration Quick Guide](#).) You also can contact your Risk Control consultant or email Ask-Risk-Control@travelers.com.



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Comprehensive Maintenance Program Fire Door Maintenance Section

COMPANY: _____ LOCATION: _____

DATE: _____ INSPECTED BY: _____

RESPONSIBLE FOR REPAIRS: _____

I have received the report _____ (Supervisor's initials and date of review)

____ WEEKLY VISUAL _____ MONTHLY MAINTENANCE _____ ANNUAL TRIP TEST

SPARE FUSIBLE LINKS AVAILABLE? ____ Yes ____ No

Door Number / Location – Manufacturer / Rating	Door Type	Trip Type	Testing Method	Test Result		Comments
				Pass	Fail*	

***If Test Result is Fail then a comment is required. Also comment on any visible damages to any door.**

COMMENTS: _____

- KEY:**
- | | | | |
|----------------------|---|--------------------|--|
| DOOR LOCATION | Description facility uses to describe door. | TEST METHOD | Remove link, tripped detector, etc. |
| DOOR TYPE | Rolling steel, vertical or horizontal sliding, swinging, etc. | PASS | Door closed properly during testing. |
| TRIP TYPE | Smoke detector, heat detector, or fusible link. | FAIL | Door did not close or only partially closed during testing.
Include Comments. |
- COMMENTS** Indicate any physical problems with door including missing fusible links, obstructions, track/frame damage, damaged cables, etc.
All damage should be repaired immediately and reported on this form.