

# Emergency Action Plans

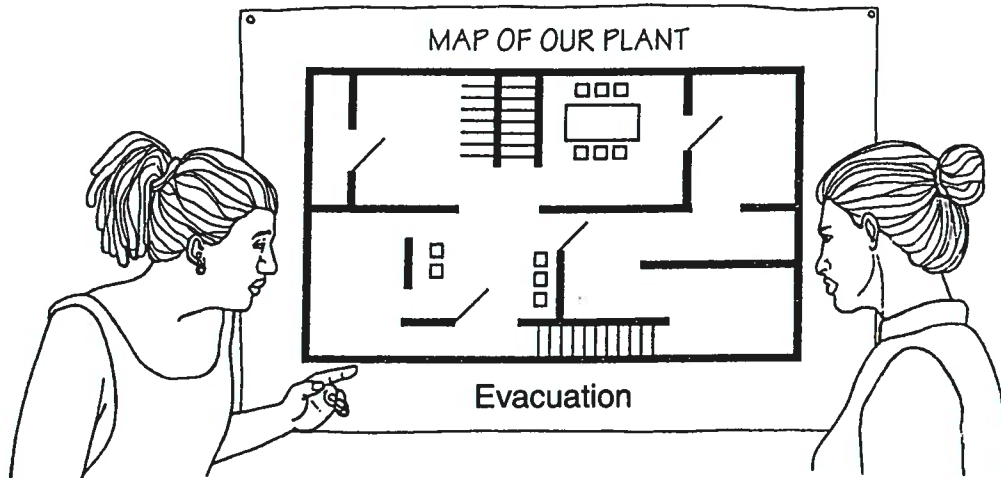
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Emergency Action Plans (EAP) are often used to evacuate workplaces in the event of fires. However, there are other emergencies – earthquakes, tornadoes, floods – that should also be kept in mind when evaluating EAPs.

The key elements of any Emergency Action Plan include:

- **a written plan** which calls for trained coordinators; established evacuation routes and assembly areas; procedures for accounting for workers and for maintaining critical operations (if necessary); assignments for rescue and medical duties;

- **worker training and regular practice drills** so that workers know how to activate the plan, what to do, and who to contact for more information;



- **alarm systems** and regular testing of the systems;
- **exits** of sufficient number, width and location so that workers can rapidly evacuate;
- **emergency lighting** for exit routes in all areas where work is performed after daylight hours;
- **testing of fire protection systems**, from building sprinkler systems to portable fire extinguishers;
- **first aid kits and trained personnel** to use them.

## National Fire Protection Association Codes

In the United States, an organization called the National Fire Protection Association (NFPA) has developed a “Life Safety Code 101” which is used in many workplaces to set requirements for:

- maximum building occupancy
- minimum number of exits

- minimum requirements for doors, stairways, ramps, slides, lighting, signs, evacuation routes, discharge areas, and areas of refuge.

Chapter 28 of the “NFPA Life Safety Code 101” contains the minimum requirements for industrial occupancies such as factories. Among the topics addressed by Chapter 28 are:

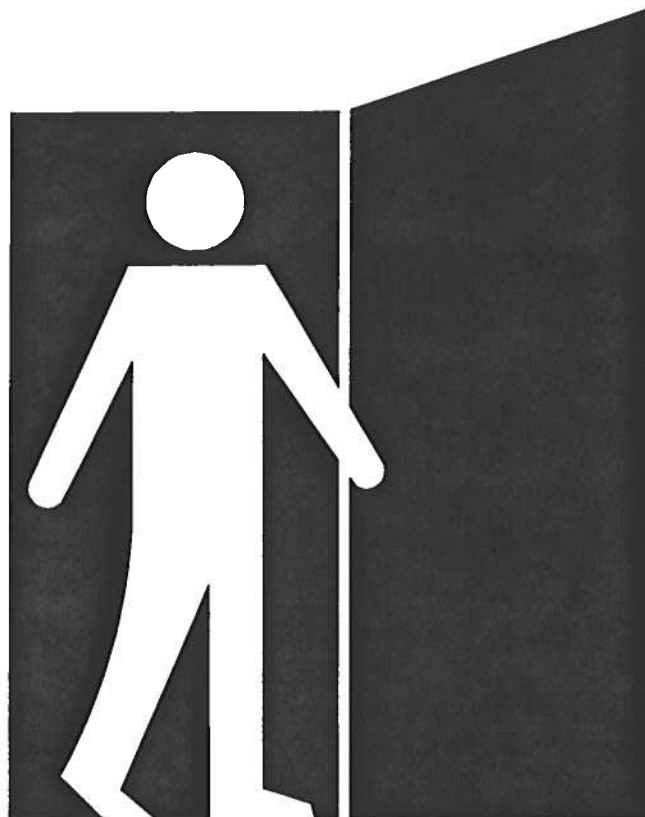
- exits
- exit passageways
- doors, stairs and landings
- ramps
- balconies
- fire escapes
- floor and wall openings
- guard rails
- discharge areas
- assembly areas
- areas of refuge
- exit signs
- fire protection systems
- building ventilation systems
- elevators and escalators



The table below includes some of the most important requirements of Chapters 5 and 28 of the NFPA document.

<b>Subject</b>	<b>Requirement</b>	<b>Chapters 5 &amp; 28 Sections</b>
"Occupant load," or the maximum number of people in the space	<ul style="list-style-type: none"> <li>• 1 person for every 9.3 square meters (100 square feet)</li> </ul>	Chap. 28-1.7
Minimum number of exits	<ul style="list-style-type: none"> <li>• Minimum of 2 for all spaces above ground level;</li> <li>• Minimum of 3 for spaces with more than 500 workers but less than 1,000 workers;</li> <li>• Minimum of 4 for more than 1,000 workers</li> </ul>	Chap. 28-2.4.1 and Chap. 5-4.1.2
Maximum travel distance to exits	<ul style="list-style-type: none"> <li>• 60 meters (200 ft) for spaces without sprinkler systems;</li> <li>• 76 meters (250 ft) for spaces with sprinkler systems;</li> <li>• 122 meters (400 ft) for ground level spaces with sprinkler systems and roof venting for smoke</li> </ul>	Chap. 28-2.6.1 and 28-2.6.2
Maximum "common path of travel" where exit passageways from two areas coincide en route to the exit	<ul style="list-style-type: none"> <li>• 15 meters (50 ft)</li> </ul>	Chap. 28-2.5.3
Minimum width of exit passageways (aisles leading to exits)	<ul style="list-style-type: none"> <li>• 91 centimeters (36 inches)</li> </ul>	Chap. 5-3.4.1

<b>Subject</b>	<b>Requirement</b>	<b>Chapters 5 &amp; 28 Sections</b>
Minimum width of doors (both single and multiple doors)	<ul style="list-style-type: none"> <li>• 81 centimeters (32 inches) for each door</li> </ul>	Chap. 5-2.1.2.2
Emergency lighting for exit passageways and doors	<ul style="list-style-type: none"> <li>• 30 second tests must be done every 30 days;</li> <li>• 90 minute tests must be done every year</li> </ul>	Chap. 5-9.3
Signs	<ul style="list-style-type: none"> <li>• Exits and exits routes must be marked</li> </ul>	Chap. 5-10



## Exits

One of the most important parts of evaluating any workplace is to ensure that exits meet the minimum requirements. The fundamental principles for exits include:

- A sufficient number of exits to permit rapid escape, at least two exits are required from any work area where one exit may be blocked by fire or smoke;
- Exits arranged and maintained to provide free and unblocked exit;
- Every exit should be visible or the escape route conspicuously marked;
- Exit aisles must be clear and at least 91 centimeters wide;
- No locks or fasteners on doors which could prevent free escape;
- Any door which is not an exit, but might be mistaken for an exit, must be marked “not an exit”;
- “Dead end” spaces with no exit must be marked or blocked to prevent workers being trapped in them while trying to escape;
- Doors must be side-hinged and swing open in the direction of travel outward. Exit doors must not open inward;
- No exit routes should go through bathrooms or other rooms that may be locked, except for the exit door for that room;
- Adequate and reliable lighting must be provided.