



Kingdom of Saudi Arabia
Ministry of Interior
General Directorate of Civil Defense

Regulation of Safety and Fire Protection Conditions in Carpentry Workshops

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Chapter 1

Definitions

Article (1) Definitions: The terminologies in this regulation means:

1. Carpentry: It refers to the carpentry workshops where all types of wood are cut and manufactured.
2. The Law: Civil Defense Law issued by the Royal Decree No. M/10 and dated 10/5/1406 H and all other relevant regulations.
3. Civil Defense Representative: The authorized person or persons by the General Directorate of Civil Defense, or one of its centers to carry out inspection, forfeiture, and investigation of violations as per the rules and procedures specified in the relevant Regulation, to ensure the safety of the building, and safety of firefighting equipment, and tools.
4. The Relevant Authority: Ministry of Interior, the General Directorate of Civil Defense, and other relevant authorities involved in the facility' license and business.
5. Safety Officer: According to Article 25 of the Civil Defense Law, the safety officer is the person (of the carpentry staff or other) appointed or assigned to be responsible for all safety and security matters. The property owner (private property) or the licensee is responsible for safety in all cases following the regulation issued in this regard. The duties and tasks of such are determined as per the regulation of authorized person in safety works and Industrial security issued in this regard.
6. Approved specifications:
 - a) Saudi Standards: issued by the Saudi Standards, Metrology, and Quality Organization, SASO.
 - b) International Standards: international specifications approved by SASO, official documents to be submitted to prove all safety rules and requirements are available in the equipment, tool or material used.



Chapter 2

General Terms and Conditions

Article (2) This Regulation shall apply to licensed carpentry workshops in industrial zones and cities, except for small furniture manufacturing shops inside residential areas. The Regulation of safety and firefighting in technical and commercial businesses shall apply to these small workshops.

Article (3) According to Article (20) of the Civil Defense Law, the licensee shall not be permitted to establish any new carpentry workshop, renewing a permit, renovating, or expanding the existent workshop until he submits a technical study. This study is prepared by one of the technical offices or entities specialized in safety and alarm and firefighting works and approved by the General Directorate of Civil Defense. The study explains the extent of compliance with the specifications and instructions mentioned in this regulation.

Article (4) The office that prepared the study mentioned in Article (3) has to answer to the Civil Defense and other relevant authorities about the study's accuracy and monitoring its implementation. The office shall undertake to provide a final certificate confirming the facility's compliance with the terms and conditions included in this Regulation. The office shall be considered responsible in solidarity with the business owner or contractor for any default or neglect in this regard.

Article (5) The safety officer is responsible for conducting monthly inspections and periodic tests (every three months) for all firefighting, alarm, monitoring, and safety methods and equipment and must immediately repair any defects or malfunctions. Failure to do this shall be considered severe negligence.



Article (6) The safety officer undertakes in the event of any malfunction or failure involving a high degree of risk, to stop or shut down the tool or equipment (the source of danger) immediately and disconnect it from the power source, and prevent the use of it until it is inspected and repaired by specialists. He must evacuate the workshop if the situation required that and immediately contact the Civil Defense center to consider proper arrangements.

Article (7) The safety officer shall assign a register called (safety and firefighting record) according to the application form prepared by Civil Defense. All pages are stamped with the seal of the Civil Defense Department or Center. All the monthly inspections and periodic tests of fire, monitoring, alarm methods, the dates, results, repair works, and other data are recorded; part of this record is dedicated to the building inspection and maintenance works and the building's electrical installations. The record must be kept within the facility management or the carpentry workshop so that the register is at the disposal of the civil defense representative at all times to view and write notes in it.

Article (8) The safety officer at the carpentry workshop may notify the relevant Civil Defense Center about the dates of the periodic tests and the entity performing these tests to agree on a date for the Civil Defense's representative to attend. The representative will sign the safety record as proof of attending such tests.

Article (9) The carpentry owner undertakes to provide a maintenance contract for alarm and firefighting systems with a specialized company or establishment and approved by the Civil Defense.

Article (10) All workers at carpentry workshops must be trained on fire & rescue, evacuation, ambulance in schools and national training institutes approved by the General Directorate of Civil Defense, or coordinate with

Civil Defense to conduct these courses. The requesting training party bears the costs of such or its share of the course costs based on one trainee's cost. Proof for the number of workers and their nationalities and receiving the proper training must be submitted.

Article (11) The safety officer undertakes to coordinate directly with the relevant Civil Defense to prepare an intervention plan during emergencies for firefighting and the procedures implemented by workers until civil defense squads arrive at the scene.

Article (12) Within their limited regional jurisdictions, the local Civil Defense committees may exempt small workshops from one or more of the conditions outlined in this regulation after studying each case separately and provided that the exemption shall not result in a breach of the minimum safety conditions.

Article (13) Violations of this regulation shall be controlled, investigated, and imposed as per Civil Defense Law and the rules or instructions issued by the General Directorate of Civil Defense governing these matters.

Chapter 3

Safety and fire protection requirements

Article (14) Required Conditions in the building:

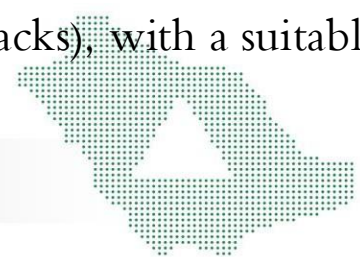
1. The carpentry workshop must be constructed or modified with a permit from the relevant authority.
2. There must be a distance between timber warehouses attached to carpentry workshops and the neighborhood, which the Civil Defense authorities estimated considering the site's area, the size of the storage, and the danger of the neighboring activities. A wall made of fire-resistant materials (not less than 2 hours of resistance) must be constructed between the carpentry and the warehouse.

The amount of stored wood in the warehouse shall not exceed five tons (approximately 5.5 cubic meters); otherwise, the issued Regulation of Safety and Fire Protection Conditions in Timber Warehouses shall apply to these warehouses.

3. The carpentry workshop must be constructed of non-combustible materials. The barriers must be fire-resistant for a period of not less than (two hours), the ceilings are non-flammable, and fire resistance for a period of (one hour). The doors must be fire-resistant for a period of not less than (one hour), and the floor is tiled with cement.
4. The carpentry workshop or the warehouses attached to it must not be used as a passage to the neighborhood.
5. Passages/corridors with a distance of not less than (1.5 m) between the machines must be left, and not less than (1 m) from all sides of the walls to the machine.
6. The carpentry workshop must not be used as workers' residence.
7. An extra exit in addition to the main entrance must be available in the carpentry workshop to be used during emergencies. All doors must lead to open roads, and the number of doors, entrances, and exits are estimated according to the area size, location, and capacity of work in it.
8. The carpentry workshop's entrances and exits must be kept permanently free of obstacles, noting the continuous cleaning of sawdust and impurities, and storing them in a particular place until they are transported.

Article (15) Instructions related to industrial safety:

1. All machines and equipment used in carpentry work, such as saws and other cutting tools, must comply with approved specifications.
2. timber boards/plates must be placed in an easy to reach location in all circumstances and in the form of groups (stacks), with a suitable size.



3. All motors, mechanical devices, ventilation, air-conditioning systems, machines, etc., must be installed and distributed so when operating them, they do not pose any danger to safety, public health, or the neighborhood's comfort.

Article (16) Lighting and electrical installations:

1. Suspended, or portable lamps or lamps that run on gas or liquid fuel are prohibited.
2. Electrical installations must be of good quality and comply with the approved specifications.
3. Electrical wiring must be inside insulating pipes/tubes.
4. A specialized technical entity must carry out the electrical installations. Periodic maintenance must be carried out every two months regularly.
5. The electrical switchboard must be placed near the outside door, inside and outside the carpentry workshop.
6. The site must be equipped with a general circuit breaker in addition to a sub breaker for each electrical machine.
7. The metal casing for all electrical and mechanical equipment must be grounded as per the technical terms and specifications approved by SASO.

Article (17) Safety Instructions for workers:

1. The worker must wear the appropriate masks against dust resulting from the sawdust and he must use protective goggles for this purpose.
2. The worker must not wear loose-fitting clothes.
3. The worker must set up protective barriers.
4. The covers above the machines must be fixed.
5. Brushes must be used to remove dust and waste collected on the cutting devices.



Article (18) Prevention:

1. Adequate ventilation (natural – mechanical) must be provided.
2. Fans must be installed to extract dust from the carpentry workshop to prevent dust build-up inside.
3. The paint materials and flammable liquids required to prepare these materials must be placed in a metal container (box) provided with side vents.
4. Carpentry workshops that use hot glue must allocate a safe place to heat and prepare the glue away from any flammable materials, provided that the fires are extinguished immediately after finishing the work. The area must be inspected before closing the shop to ensure that the fire is extinguished and there is no possibility of re-ignition.
5. Smoking is strictly prohibited inside the carpentry. Warning signs are placed in visible areas and at the entrance in both Arabic and English.
6. The provision of first aid materials and tools in the carpentry workshop.

Article (19) Firefighting equipment:

1. **Manual fire extinguishers:** The carpentry workshop and the timber warehouse (if any) are provided with the necessary number of fire extinguishers. The weight of each is 6kg. one set is dry chemical powder type, and the other set is a water type and distributed throughout the site with the rate of one of each type per (150M²). Dry chemical powder or Co² extinguishers are placed to protect electrical installations and equipment, one extinguisher per equipment.
2. **Movable hose reels:** metal reels with a rubber hose around each of them, hose length between (20–30) meters and a diameter of (1–1.5) inches. The hose end is connected to a pressurized water source and the other end is equipped with a metal nozzle that discharges/throw water so that the workers on site can easily use it. One hose reel must be dedicated for each (300M²) of the site.



3. **Firewater network:** The hose reels are connected to a piping network that is connected to the main fire water network in the city or to a water tank. The water tank is equipped with a fire pump to provide enough water, not less than (150 GPM). Fire hydrants with two outlets, type used by Civil Defense to be installed outside the carpentry workshop near the main entrance, fire vehicles can easily reach or access, and the network is provided with the necessary pressure indicators/gauges. The following instructions shall be implemented:
- a) Installations exposed to frosting must be protected by covering/wrapping them with an insulating material.
 - b) Fire extensions are painted in a distinctive color, red color is preferable.
 - c) The reels are installed inside a metal boxes (fire cabinet) to protect them from tampering.
 - d) The network is tested periodically every month to check its readiness and efficiency. Maintenance is also carried out for fire extinguishers every (month) as well as inspecting and testing every year. Empty or damaged extinguishers are immediately replaced with valid ones.

