

# Problem 09

## Safe & Well



FIRST AID



SCHOOL OF  
ENGINEERING

# Facilities Planning for Personnel Requirements

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- Objectives:
  - Provide an interface between work and private time
  - Improve safety and health at workplace
  - Improve personnel productivity by improving personnel morale
- Examples of provisions: first aid, food services, locker rooms
- Extent of provisions depends on government regulations and management's policy
- In Singapore, provisions pertaining to safety and health are controlled by legislations
  - Workplace Safety and Health Act

# Facilities Planning for Personnel Requirements

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Key aspects to consider when doing facilities planning:

- Locker rooms – proximity to staff entrances, allocation by gender, ventilation, traffic flow
- Restrooms – near work area, minimum number required, privacy, allocation by gender
- Food services – number of staff, kitchen and dining area layout, ease of cleaning, aesthetic factors, location, ventilation
- Drinking fountains – quantity, location, distribution
- Health services – first aid room and first aid kits, location, evacuation routes
- Car parks – number of staff, space utilization, traffic flow

# The Workplace Safety and Health Act (Singapore)

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Came in effect 1st March 2006 as an essential part of the new framework to cultivate good safety habits in all individuals so as to engender a strong safety culture in our workplace.

The Workplace Safety and Health Act (Singapore) can be found under from the Occupational Safety and Health Department (OSHD) of the Ministry of Manpower (MOM).

The workplace safety and health (first aid) regulations is issued by the Occupational Safety and Health Department (OSHD) under the Ministry of Manpower (MOM).

Website address of MOM: <http://www.mom.gov.sg>

# Guidelines To First Aid Provisions

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- a) Provide first aid boxes, number required according to number of staff each work shift  
(1 First Aid Box A for 25 employees)
- b) Provide at least one First Aid Box on each floor within the premises
- c) Provide a trained first-aider if staff employed exceeds 25
- d) Provide a first aid room if total staff employed exceeds 500
- e) Provide flushing point for chemical/toxic substances handling industries

According to the WSHA, a first aid room have to be provided since the number of workers exceeds 500.

Note: 2 First Aid Box A = 1 First Aid Box B  
2 First Aid Box B = 1 First Aid Box C<sup>5</sup>

# Guidelines To First Aid Provisions



## MOM Workplace Safety and Health Act 2006 (Second Schedule)

### Ratio Of First-Aiders To The Number Of Employees

Type of workplace	No. of employees	No. of first-aiders
Quarries, construction sites, shipyards, petroleum refineries, woodworking factories	26 – 100	one
	More than 100	one for every 100 persons employed or less
All other factories and workplaces covered under the Regulations	26 – 150	one
	More than 150	one for every 150 persons employed or less

### Shift Work

If there is a shift work schedule, there must be a sufficient number of first-aiders corresponding to the number of employees working on that shift to provide adequate coverage for each shift.

# Guidelines To Provision Of First Aid Room

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## Design to include:

- A couch for waiting patients
- Moving space for people and equipment
- Emergency lighting
- Signboard to identify room
- First Aid equipment
- Total floor space

## Location factors:

- Near toilets
- Near lifts and main passageways
- Accessibility to work area
- Accessibility to car park

# Guidelines To Provision Of First Aid Room

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Items required:

- Sink with running potable water
- Paper towels
- Smooth-topped working surface
- Supply of sterile dressings
- Stretchers
- Splints
- Thermometer
- Couch with pillow and blanket
- Wheelchairs
- Personal disinfectants
- Garments for first-aider
- Refuse bin
- Chairs
- Any other special requirements

# P09 Sample Solution



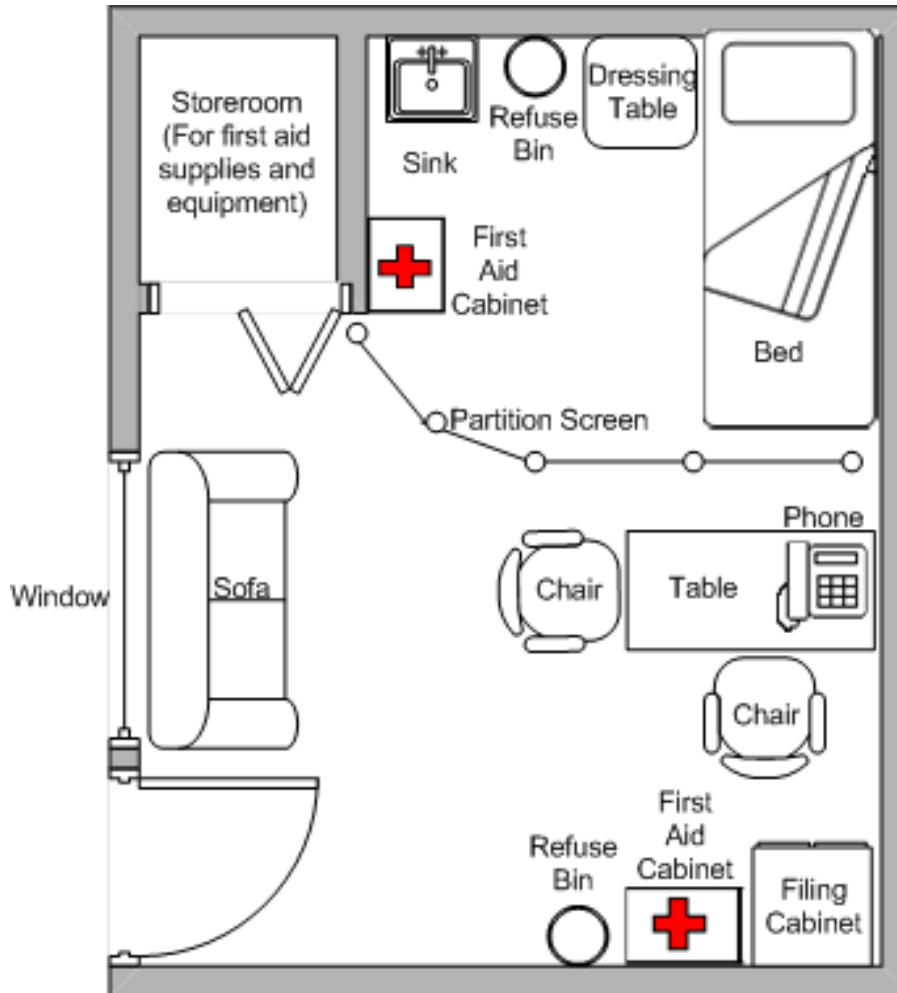
# Location Of First Aid Facilities



(assuming workforce of 510 per shift)

- 1) Location for First Aid Room
  - near toilet
  - near entrance to factory floor
- 2) Provide additional five more Type C First Aid Kit.
- 3) Need 4 first aiders (per shift).

# Suggested Layout Of First Aid Room



## 1) Design factors

- adequate moving space
- quick access for wheelchair, stretcher and medical supplies
- bedside screen for privacy
- area for medical equipment

## 2) Required items (not exhaustive)

- phone
- medicine cabinet
- dressing table
- washing sink
- refuse bin
- filing cabinet
- sofa and chairs
- bed for patient
- garments for first-aider
- thermometer
- other medical diagnostic tools

# Welfare Provisions That Could Be Considered

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- Provide more lockers for increased number of workers
- Provide drinking fountains at closer proximity to workers but not inside the area (Why?)
- Schedule lunch hour to ease possible overcrowding at canteen due to increased number of workers

# Learning Objectives

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- Plan for safety and welfare provision for workers
  - Recognize the benefits of maintaining safety and health in workplace
  - Identify personnel provisions in workplace that can help achieve safety, health in workplace, as well as improve workers' productivity
  - Know the key areas of personnel provision that are governed by government guidelines and regulations, and the authorities controlling them
- Know where to find the Workplace Safety and Health Act and how to interpret them
- Evaluate a facility according to its functionality, human friendliness and accordance to government regulation