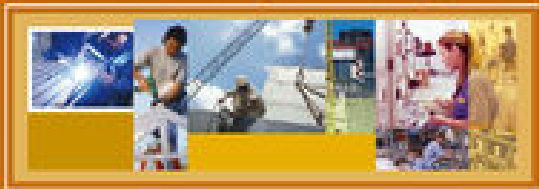


英文版 English version



Foreign Workers

>> Guidelines of Occupational Safety and Health



Foreign Workers

>> Guidelines of Occupational Safety and Health



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Institute of Occupational Safety and Health,
Council of Labor Affairs, Executive Yuan



Guidelines of Occupational Safety and Health for Foreign Workers

- Statistics of occupational accidents insurance payments
- Causes and strategies of occupational accidents
- The rights and obligations of foreign workers
- Common knowledge of occupational hazards
- Prevention of occupational accidents



Occupational Injury Insurance Benefit Payments (1/2)

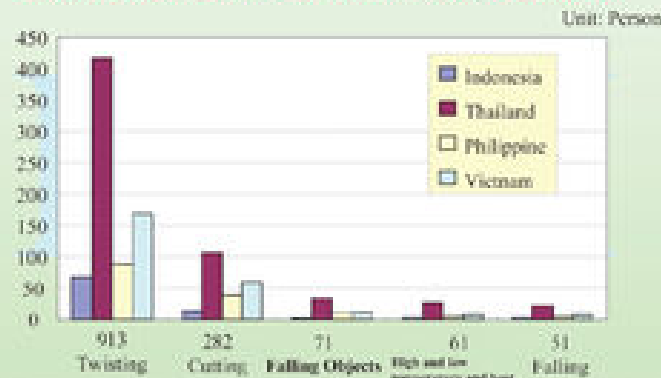
- 2008 statistics from the Bureau of Labor Insurance, occupational injuries of the employed foreign workers under labor insurance in Taiwan-Fukien area show:
- Foreign workers in Taiwan, primarily from Indonesia (127,764 persons, the ratio of Indonesians to total foreign workers is 35%)
- Occupational injuries of the employed foreign workers, primarily from Thailand (640 persons, the ratio of Thailand to total foreign workers is 41%)

Data sources: Labor annual statistical report published on June 2009, Table 13-3 and 13-12.





2008 Occupational Injuries of the Employed Foreign Workers under Labor Insurance in Taiwan-Fukien Area (2/2)



Remark: This table lists the top 4 occupational injuries of the employed foreign workers with labor insurance in Taiwan.
 Data source: Labor annual statistical report published in June 2009, Table 13-12.



The most frequent Hazard Factors (2/3)

- **Chemical hazards:**
Such as gases, vapors, smudges, droplets, fine dust etc... which contain dangerous substances
- **Physical Hazards:**
Cutting, twisting, amputation, rolling, collision, electric shock, induced current, high temperature and heat, fine dust, noise and mechanical device operation, falling, confined space, etc...
- **Ergonomics Hazards:**
If workers move large or heavy objects they often use incorrect posture. While lifting objects, handling materials or doing physically demanding work, including lifting, pushing, and pulling, over a long period of time, disorders such as hand or back injuries, sprains and strains, shooting pain down the legs and buttocks, lower back pain and other disorders of the back may develop over time.



What Are Occupational Injuries? (1/3)



Occupational Injuries Prevention Strategies (3/3)

- Eliminating the hazardous factors produced by buildings, work measures, production materials, equipment
- Block and cover the potentially hazardous areas
- Following "Work Safety Regulations"
- Following the standard operation procedures
- Using individual protective gear





Labor Safety and Health Law- Labors' Rights (1/2)

Article 25: Laborers' representative is authorized to participate in making labor safety and health regulations.

(The policy making of the Labor Safety and Health Law needed in consultation with foreign labor representatives.)

Article 30: If laborer finds the workplaces violate the safety and health laws and related regulations, laborer must report to employer, competent authority or inspection institute.



Common knowledge of occupational hazard (1/9)

- First step is to promote the recognition of dangerous substances.
- Common knowledge standards of occupational hazard must contain two essential parts:

1. Symbols
Classification based on the hazardous materials' characteristics
2. Contents
 - ✓ Name
 - ✓ Major hazardous substances
 - ✓ Hazard warning information
 - ✓ Hazard prevention measures
 - ✓ Manufacturer's or supplier's name, address and telephone numbers



Labor Safety and Health Law- Laborers' Obligations (2/2)

- Article 12: Workers must take medical examinations.
- Article 23: Workers must accept guidelines and training programs.
- Article 25: Workers must observe and obey the safety and health regulations.
(The laborers shall effectively obey the rules mentioned in the preceding paragraph.)
- Article 35: A penalty of up to NTS 3,000 for violating the rules and regulations cited in these provisions.



Classifications of Chemical materials - Physical Hazards (2/9)

Explosive Material



- Flammable gas
- Flammable aerosols
- Flammable liquids
- Flammable solids

- Pyrophoric liquids
- Pyrophoric solids
- Self-heating substances
- Substances which, in contact with water, emit flammable gases





Classifications of Chemical materials - Physical Hazards (3/9)

- Self-reactive substances
- Organic peroxides



- Oxidizing liquids
- Oxidizing solids
- Oxidizing gases



Classifications of Chemical materials - Health Hazards (5/9)

- Acute toxicity (swallowed, in contact with skin and inhalation)
- Skin corrosion/ irritation
- Serious eye damage/ eye irritation
- Skin sensitization



Classifications of Chemical materials - Physical Hazards (4/9)

- Corrosive to metals



- Gases under pressure



Classifications of Chemical materials - Health Hazards (6/9)

- Respiratory sensitization
- Germ cell mutagenicity
- Carcinogenicity
- Reproductive toxicity
- Specific target organ systemic toxicity- Repeated exposure
- Aspiration hazard



- Specific target organ systemic toxicity- Single exposure





Other Symbols (7/9)

- Radioactive Substance



Symbols of Hazardous Substance (9/9)

苯 (Benzene)



危害成份：苯
 危害警告訊息：
 高度易燃液體與蒸氣
 吞食有害，造成皮膚刺激
 造成眼睛刺激
 可能造成遺傳缺陷、致癌
 懷疑對生育力、胎兒造成傷害
 長期暴露會損害神經系統
 對水生生物有害
 吞食或進入呼吸道可能致命

危害防範措施：
 蓋緊容器
 置容器於通風良好處
 遠離引燃物—嚴禁煙火
 眼睛接觸立刻以大量水洗後就醫
 衣物經污染應立即脫除
 勿列入排水溝
 若覺不適請就醫並出示此資料
 避免暴露於此物質—須經特殊指示
 使用
 製造商或供應商：
 (1)名稱：***
 (2)地址：***
 (3)電話：***
 欲詳細資料請參考物質安全資料表



Symbols of Hazardous Substance (8/9)



“Machine Injury” Prevention (1/6)

- “Rolling-in Point”- this particular danger which occurs with the roller.
- Objects or body may be caught in the rollers and crushed.
- Workers cannot wear gloves while operating roller machine.





“Machine Injury” Prevention (2/6)



Pay attention to prevent loose hair, scarves, gloves and ID tags from getting caught in machinery. Workers should wear protective suits.



“Machine Injury” Prevention (4/6)



- Transmissions' pulley belts must have a shield.
- The side without cover must face the wall in order to prevent accidents.
- The installed cover must not be removed.



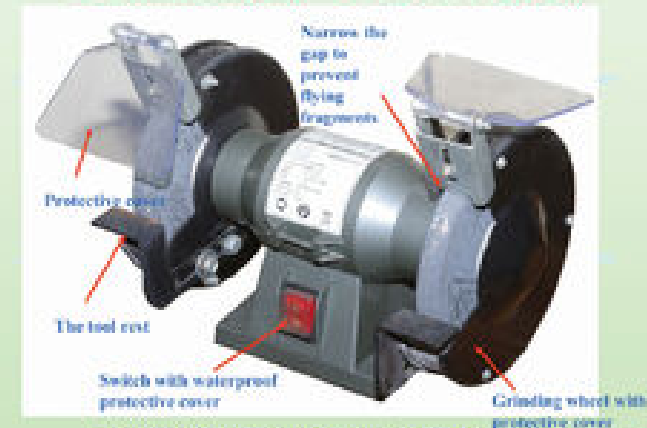
“Machine Injury” Prevention (3/6)



When operating roller machines, workers need to tighten clothes and tie back or cover hair by wearing a hat or head covering in order to prevent operator from machine injury.



“Machine Injury” Prevention (5/6)



Rotating abrasive wheel on a bench grinder





“Machine Injury” Prevention (6/6)



Workers cannot wear gloves in order to avoid getting fingers caught in drilling-machine while operating it.

“Cutting Injury” Prevention (2/2)



A protective shield must be installed around the filler inset.



While operating crushers, workers must keep hands away from the operating-point and take care so as not to be hit by small objects.

“Cutting Injury” Prevention (1/2)



When using a knife for long periods of time, workers must wear cutting-resistant gloves to prevent cuts.

“Falling Objects” Prevention (1/2)

- Equipment should have a safety snap hook in order to prevent objects from sliding off.
- Fixed and steady.





“Falling Objects” Prevention (2/2)

TIPS

The hanging operator must have proper training. The hanging operator must ensure the strength of the wire net and provide operation guidelines for the operator.



When hanging heavy things, operators must use a wire rope (N=2), tighten the rope, and use appropriate materials to keep the wire rope from breaking.

Council of Labor Affairs Executive Yuan- The hanging operation safety

Tie the materials first before hanging. The hoist or line must have enough strength to lift the materials to prevent the line from breaking and causing an accident.



“High Temperature ” Accident Prevention (2/3)

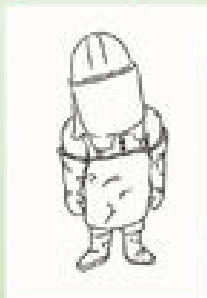


Pre-heated mixers

When changing plastic materials or cleaning heating cylinder, the operators need to wear protective masks and heat-resistant gloves in order to prevent burns from hot materials that may shoot out of the nozzle.



“High Temperature ” Accident Prevention (1/3)



Personnel should wear aluminum protective suits, shoes, visor, gaiters and masks while working in high temperature work places.



“High Temperature ” Accident Prevention (3/3)



When taking products from high-temperature machines, workers must wear long sleeves and heat-resistant gloves to prevent burns.

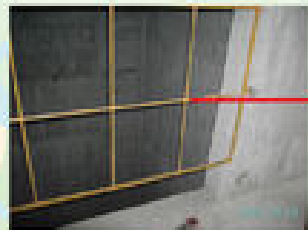




Preventing Injury from Falling Object (1/6)



✗ Wrong

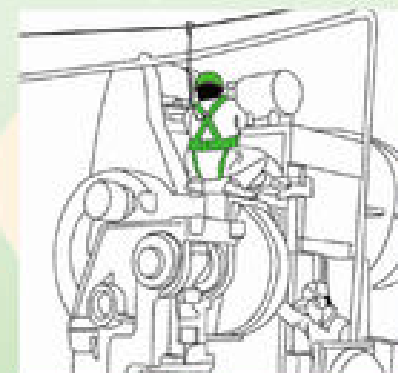


✓ Right

Exits more than 2 meters high should have protective railings, covers or nets installed for safety.



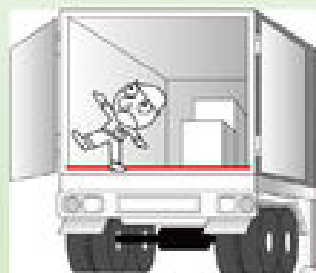
Preventing Injury from Falling Object (3/6)



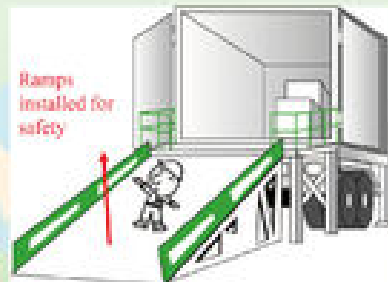
Workers who operate in high areas above 2 meters high should wear safety ropes, lifeline, hard hats, and other necessary protective gear.



Preventing Injury from Falling Object (2/6)



✗ Wrong



✓ Right

Loading / unloading areas more than 1.5 meters high should have ramps installed for safety.



Preventing Injury from Falling Object (4/6)

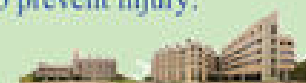


✗ Wrong



✓ Right

Workers who operate on the roof should install life lines and floor-boards more than 30 centimeters wide and wear safety ropes and hard hats to prevent injury.





Preventing Injury from Falling Object (5/6)



✗ Wrong

Exits more than 2 meters high should have protective railings installed for safety, and warning signs should be hung with illustrations.



✓ Right

“Collision” Prevention (1/2)



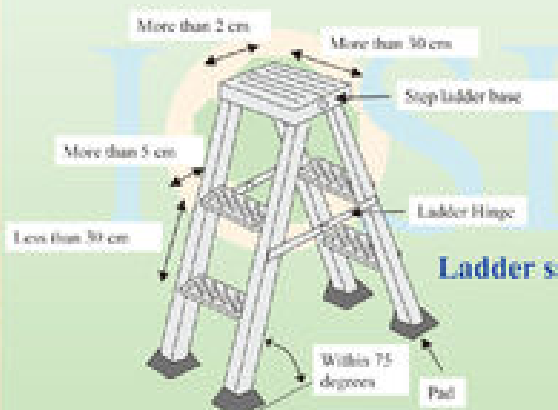
✗ Wrong

To avoid being hit, do not stand behind the forklift.



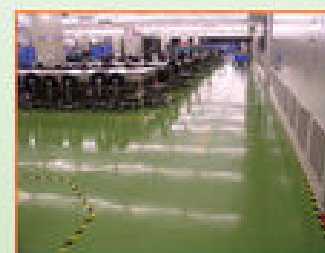
✓ Right

Preventing Injury from Falling Object (6/6)



Ladder safety standards

“Collision” Prevention (2/2)

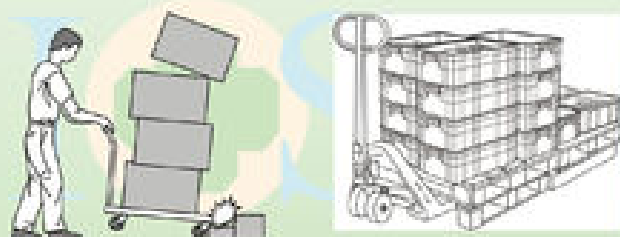


To avoid accidents while walking on aisles or walkways, maintain a clear path without obstruction. Do not stack or pile any articles or materials in aisles and walkways to avoid colliding or tripping.





“Collapsed Objects” Prevention (1/4)



✗ Wrong

✓ Right

Pallet trucks carrying goods cannot exceed the load bearing limit and attention should be paid to cleanliness and order on the ground.



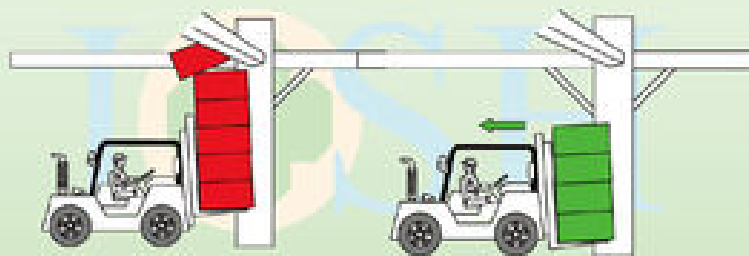
“Collapsed Objects” Prevention (3/4)



When going downhill or turning a corner in a forklift, attention should be paid to the speed limit in order to avoid goods or forklift falling.



“Collapsed Objects” Prevention (2/4)



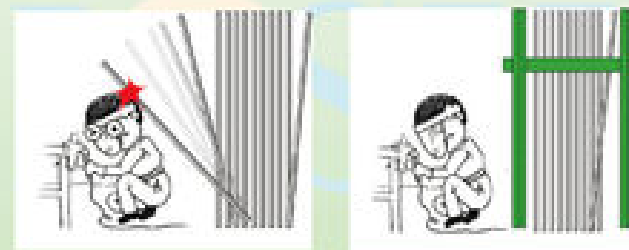
✗ Wrong

✓ Right

When operating forklifts, attention should be paid to weight, height of goods and line of vision. Workers must reverse if line of vision is obstructed.



“Collapsed Objects” Prevention (4/4)



✗ Wrong

✓ Right

Loose materials that may easily fall should be secured.



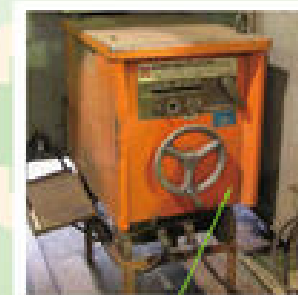


“Electric Shock” Prevention (1/5)

- Install Circuit Breaker
- Install grounded wires
- Be sure to turn off the power supply while repairing machinery
- Use insulated gloves

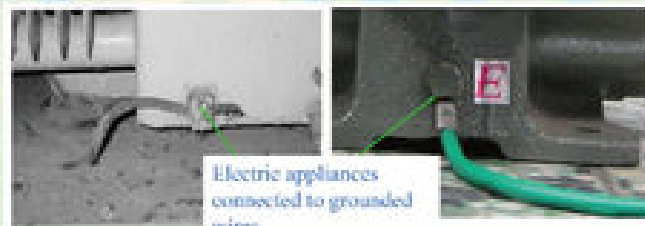


“Electric Shock” Prevention (3/5)



An AC welding machine with a built-in electric shock prevention device, must have insulated covers around contact points and grounded wires.

“Electric Shock” Prevention (2/5)

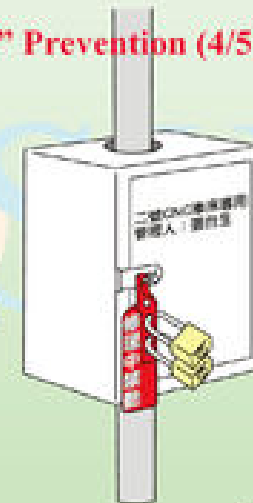


Electric appliances connected to grounded wires.

Protective measures- electric appliances must be connected to the ground in order to channel the excess current through grounded wires.

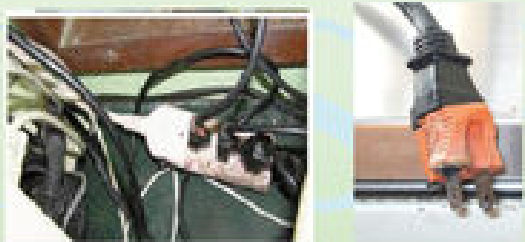
“Electric Shock” Prevention (4/5)

Hang a visible sign stating, “Do not operate machinery during power failure” as a security measure, and lock the electrical box switchboard.





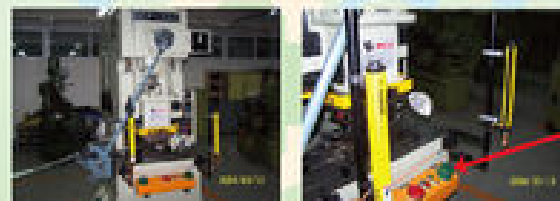
“Electric Shock” Prevention (5/5)



Broken, burned and loose plugs or sockets cannot be used. Avoid using electrical appliances simultaneously in the same socket, because it is easy to overload the current-carrying capacity.



Mechanical Movement (Pressing, Cutoff, Bending)- Accident Prevention (2/3)



When operating a punch press, workers must properly maintain the emergency button.



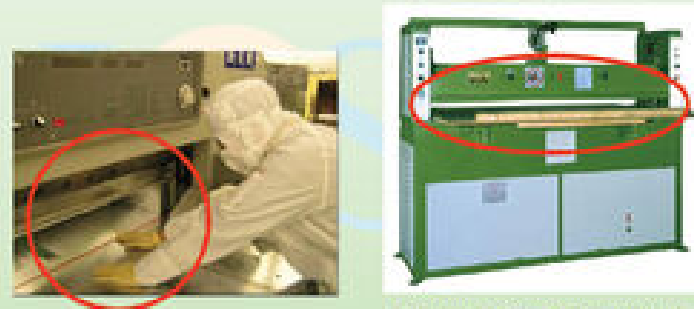
Mechanical Movement (Pressing, Cutoff, Bending)- Accident Prevention (1/3)

A punch press is a type of machine press used for forming and cutting material. “Work-Point” is where the material goes through and accidents frequently occur.

- Emergency Button
- Linkage Switch
- Protective Cover



Mechanical Movement (Pressing, Cutoff, Bending)- Accident Prevention (3/3)



Hydraulic Plane Cutting Machine

When operating the cutting machine, keep hands from cutting area for safety.





Protective Gear (1/5)



Protective Goggles- To avoid flying objects, sparks and metal shavings from getting into the eyes.



Ear Cover- Necessary for workers in noisy environments.



Ear Plugs- Necessary for the workers in hot and humid environments.

Soundproof (Protective Gear)



Protective Suits (3/5)

- Protection
- Body and skin
 - Chemical burns and corrosion
 - Burns
 - Inhalation of noxious gases
 - Electric shock
 - Puncture wounds



Protective Mask (2/5)



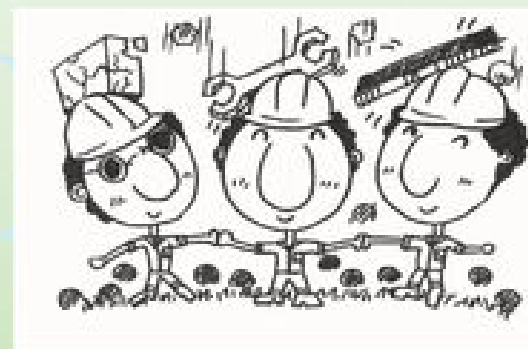
Protective Mask- to choose the correct mask check the pollutants in the area.



When workers go into airless and confined spaces, they must use supplied air respirators.



Hardhat Protection (4/5)



Can reduce head injuries caused by falling objects, as well as injuries such as falling, puncture wounds and electric shock.





Protective Gear (5/5)



Protective gloves → Prevent injury from cutting, electric shock, chemical materials, etc...

Safety Shoes → Prevent injury from perforation, electric shock, rolling, etc

