

## PRESS RELEASE

### The CLA Bulletin Series for the Promotion of Occupational Safety

Starting from the year 2001, the Council of Labor Affairs, a unit of the Administrative Yuan, launched a campaign with the goal of reducing the occurrence of occupational accidents nation-wide within four years and to implement 233 disaster prevention measures in the working environment all over the country, with the effect that the number of fatal accidents at work dropped from 65 per million in 2002 to 36 in 2010, which means a decrease of 44.6%. According to statistics, in the working units which implemented measures to improve occupational safety and health, the number of fatal accidents at work was 290 in the year 2010, compared to an average of 333 fatal accidents in the period from 2006 to 2007, which means a decrease of 43 casualties. Thus, the proportion of fatal work accidents per thousand dropped from an average of 0.0521 in the time from 2006 to 2007 to 0.0430 in 2010, i.e. a decrease by 17.5%. Among the disaster-prevention measures, it turned out that one of the most effective ways was to spread information about former incidents as examples in order to prevent similar accidents from happening again.

In July 2001, the Institute of Occupational Safety and Health started to publish the “Occupational Safety Warning Bulletin” series, in which former cases of accidents were reported to illustrate the direct as well as the indirect causes for the disasters, to suggest how to react in emergency situations and which first-aid measures should be taken, and to point out which changes and measures are advisable to improve safety and to prevent future accidents. Till now, 42 bulletins have been issued. According to the different types of accidents, they can be divided into the following categories:

#### 1. Accidents involving fire and explosion

- Using high-wattage lights during the coating of glass-fiber with epoxy resin

might lead to cable fire and fire disaster if the temperature exceeds 350°C

- Vehicles carrying easily inflammable goods should be equipped with fire extinguishers
- Auxiliary equipment for cutting and spot-welding silos should be handled with the appropriate safety measures to prevent explosions caused by solvents in pipelines catching fire
- Fire and explosion prevention video I: Venting of dust explosions through rupture disks and explosion- and fire-proof devices
- Fire and explosion prevention video II: Explosion suppression systems
- Fire and explosion prevention video III: Explosion isolation systems
- Foreign metal particles in pipelines exposed to pure oxygen might cause heat, fire and serious casualties
- Prevention of fire and magnesium alloy dust explosions during the polishing of laptop computer surfaces
- Prevention of the occurrence of organic vapors and smoke-caused deflagration from smoldering PU foam
- Knocking or cutting an organic solvent container with an iron tool might cause organic vapor explosions
- Prevention of the explosion of oxygen and nitrogen trifluoride gas cylinders, compressors or pumps
- Improperly stored peroxides might explode when exposed to heat
- Prevention of molten metal dripping into water causing steam explosions and serious casualties
- Prevention of the explosion of plastic powder as input material
- Simulation video about fire and explosion accidents involving incense and

essential oils

- Use of fire in organic vapor areas might cause vapor cloud explosions
- In the production of items made from aluminum-magnesium alloys, static electricity resulting from polishing and trimming might lead to dust explosions

## 2. Reaction to loss-of-control accidents

- Safe storage temperatures for organic peroxides
- Prevention of explosions caused by the mixing, heating or improper dosing of chemicals during experiments
- Prevention of an excess of foreign chemical particles or over-temperature in batch reactors which might lead to explosions by uncontrolled reactions
- Prevention of explosions caused by the approximation of the set temperature to the thermal runaway temperature in batch reactors

## 3. Static electricity and electric shock accidents

- Beware of the risks of static electricity explosions when conveying organic solvents through pipelines
- Prevention of electric shocks during electric welding
- Beware of the risks of static electricity when conveying paper or plastic film with rollers
- Prevention of mobile cranes getting in contact with high-voltage wires, causing electric shock casualties

## 4. Construction accidents

- Beware of the dangers while working on scaffoldings
- Precautions for the working on roofs
- Prevention of accidents of workers falling down while erecting scaffolds
- The cases of collapse during the construction of traditional beam bridges are increasing

## 5. Machinery accidents

- Beware of the danger of pipeline corrosion in petrochemical plants
- Fatal accidents involving cranes carrying and lifting weights occur frequently
- Beware of entanglement accidents! Don't get caught or entangled at work
- Mobile crane safety
- Prevention of stacker accidents

## 6. Confined space and suffocation accidents

- Prevention of casualties in confined spaces due to lack of oxygen
- Beware of hoses getting loose, causing accidents and dangers to the health of the workers
- Prevention of gasoline and diesel pump emissions poisoning workers with carbon monoxide
- Beware of corruptible organic matters leading to the formation of hydrogen sulfide at the sources of hot sulfur springs, in waste water tanks and culverts

## 7. Accidents due to exposure to chemicals

- Prevention of the risks of exposure to indium, indium-tin oxide and indium compounds
- Danger! Cases of workers accidentally poisoned by contact with hydroxide-tetramethyl-ammonium solutions

## 8. Other

- Ordinary ladders can also lead to serious work accidents
- Students working part-time during the summer vacation must pay attention to safety

The Institute of Occupational Safety and Health uses the Internet, official bulletins, on-site counseling and other ways to bring the information to various industrial zones (54 units), institutions of higher education (59 units), trade unions

(14 units) and administrative units (37), and publishes relevant information on its website (<http://www.iosh.gov.tw>) as a reference for professionals and students in order to promote occupational safety in the working environment.