

## Abstract

Occupational health and safety vulnerability of workers in micro and small enterprizes: The causes and control measures

### **Objectives:**

Acute methanol poisoning broke out in subcontract workplaces in early 2016. Typical occupational poisoning accident which had frequently occurred in underdeveloped countries shouldn't have occurred in modern Korea in 2016. Therefore we planned the study to dig out underlying causes of this intoxication and propose a fundamental policy to get rid of this type of occupational poisoning.

### **Methods and contents:**

- 1) Evaluation of appropriateness of regulations by literature review
- 2) Evaluation of size change and employment pattern of manufacturers based on statistical DB
- 3) Evaluation of occupational health and safety characteristics by in-depth analysis of the DB
- 4) Evaluation of occupational health and safety characteristics of workers in micro and small enterprizes by interview
- 5) Evaluation of characteristics of chemical induced occupational diseases cases by systematic approach

**Results:**

Manufacturers with less than 5 employees, which occupy more than 98% of all manufacturers, are exempted with essential regulations of OSH Act and placed in vulnerable situation. Moreover employers do not know about OSH Act and such workplaces use much more female, aged, migrant, temporary and agency workers compared to large industries. Therefore, the level of occupational health and safety is lower and the incidence of occupational injury is higher in micro and small enterprises than large enterprises in Korea. To solve this issue, amendment should be made on current OSH Act which deal with occupational health and safety of regular workers in middle and large enterprises with focus on periodic environmental measurement and occupational medical examination. However, many primary causes and secondary phenomena are mingled and interconnected, hence, underlying root causes scarcely tangible in micro and small manufacturers. So we systematically analyzed occupational health and safety vulnerability and proposed fundamental solutions as follows.

First, employers do not know about OSH Act and hazards of chemicals in workplaces.

**Solution:**

All employers should know about employers' responsibilities in OSH Act from the start of business.

All employers should inform workers of hazards and their prevention.

Risk assessment should be performed when work process are started or modified.

Second, Occupational safety and health vulnerability in micro enterprizes

Solution:

Employers should take responsibilities by themselves or designating delegate with amendment of regulation.

Even manufacturers with less than 5 employees should not be exempted with essential regulations of OSH Act.

Third, Occupational safety and health vulnerability of temporary, agency workers in micro enterprizes

Solutions:

Users of workers should take primary responsibility on workers health and safety with amendment of regulation.

- Amendment should be made on current OSH Act to deal mainly with occupational health and safety of temporary or agency workers.

**Key words:**

Methanol poisoning, Micro and small manufacturer, Agency worker, occupational Safety and Health Act, Responsibilities of employer