



## Editorial

We Should Have Concerns about *Risk Transfer*

The recent fatality rate per 10,000 workers due to industrial accidents in Korea has gradually decreasing (2007 = 1.92, 2008 = 1.80, 2009 = 1.57, 2010 = 1.55, 2011 = 1.48, 2012 = 1.40). Also, among the total occupational injuries and illness, the proportion of those in employees who belong to a workplace with over 300 employees has diminished since 2004 (2004 = 14.9%, 2005 = 12.6%, 2006 = 10.1%, 2007 = 8.5%, 2008 = 7.4%, 2009 = 6.6%, 2010 = 5.8%, 2011 = 5.5%, 2012 = 5.7%). Based on these statistics, the Korean occupational safety and health index seems to have improved, and in particular, the rate of industrial accidents among conglomerates and related fatalities seems to have reduced.

Despite this figure, serious industrial accidents still occur in the high risk workplaces. For example, last January, one worker died and four workers were injured by exposure to hydrogen fluoride during maintenance activities in a semiconductor manufacturing company, and last March, six workers died and 11 workers were wounded by a silo explosion during turnaround maintenance work in a petrochemical factory. The major similarity between these recent serious industrial accidents is that they appeared to have occurred in conglomerates. However, in fact, the accidents occurred in subcontracting factories and the casualties were also subcontractors. What do these accidents mean for safety in the workplace?

Historically, the national economic development plan in Korea was promoted based on the importance of the heavy chemical industry during the mid 1970s, but from the late 1980s, the focus of the national economic development plan shifted towards the shipbuilding and the steel industries. In view of this change, indirect hiring, including in-house subcontracting, emerged, and expanded in the manufacturing industry during the 1990s, and then even in the service industry. In other words, types of occupations in the service industry such as cleaning, security, and cuisine have been outsourced as labor services and, since the early 2000s, the use of subcontracting for financial advantage has increased in business and the IT industries.

In Korea, the increases in in-house subcontracting results in the *risk transfer* phenomenon where subcontracting employees have been more subject to high-level risk activities than regular workers in the same workplace. In other words, most parent companies transfer high-level risk work activities to subcontractors and the subcontractors also transfer such activities to smaller subcontractors.

Subcontracting, which is targeted at reducing labor costs and avoiding the parent company employer responsibility in diverse industrial accidents, increases employment instability; it also leads to rapidly growing concerns on worker safety and health.

However, most subcontracting operations are too small to invest manpower and financial resources in maintaining safety in the workplace. Moreover, most workers who work for subcontractors are not hired on a regular basis and are frequently replaced by others. What is worse, unqualified people are often employed in the workplace. In this situation, they occasionally neglect the work manual and safety rules. In the same workplace, regular workers who belong to the parent company are trained in the work manual and safety rules, whereas subcontracting workers do not undergo the same training. Subcontractors usually do not provide their workers with information about the handling of hazardous substances. Subcontracting workers are more likely to suffer from occupational injuries or illness compared to parent company workers in the same workplace. Through outsourcing, most major conglomerates are able to get away from the responsibility of employee safety in the workplace. Therefore, when an accident occurs in a workplace, most parent company employers receive mild punishment or penalty, even if a fatal accident occurs among subcontracting workers. Such structures eventually function as a critical cause of not only most employers' lack of concern on industrial safety but also the repetition of serious accidents in the workplace. However, there have only been a few fragmentary and inadequate researches on these circumstances. To reduce industrial accidents, we need to investigate the current status of *risk transfer* and determine appropriate measures to counteract it.

In the light of *risk transfer*, maintenance is one of the areas to which the counter-plan should be applied urgently. The Korean Industrial Safety and Health Act prohibits several specific activities from the use of subcontractors and demands that permissions for using such subcontractors be granted by the Ministry of Employment and Labor. Moreover, the act states that when the parent corporation uses subcontractors in prohibited activities, they should train workers and provide safety manuals in the workplace. However, maintenance work, which is one of the most dangerous types of work, has not been included in the prohibited activities that cannot use subcontractors. The safety and health of workers involved in maintenance activities in the workplace should be provided by the parent company.

The relevant information is provided by the European Agency for Safety and Health at Work (EU-OSHA) as follows: "Maintenance itself is a high-risk activity and it has to be performed in a safe way, with appropriate protection of maintenance workers and other people present in the workplace. Maintenance is a generic term for a variety of tasks in very different types of sectors and all kinds of working environments. Maintenance activities include inspection, testing, measurement, replacement, adjustment, repair, up-keep, fault detection, replacement of parts, servicing, lubrication, and cleaning.

Analyses of EUROSTAT data based on the European statistics on accidents at work (ESAW) methodology can help identify accidents related to maintenance operations in several European countries. It is estimated that around 15–20% (depending on the country) of all accidents and 10–15% of all fatal accidents are related to maintenance operations. Maintenance is fourth on the list of the top 10 working processes accounting for the highest number of fatal accidents over the years 2003–2005 (EUROSTAT-ESAW).

Accidents increasingly tend to happen not during normal operation, but rather during repair, maintenance, cleaning, adjusting, etc. According to a survey conducted in 2005 in France, maintenance is the most subcontracted function in industry. Analysis of the French work accidents database shows that in 2002 maintenance employees were the second most frequent victims of accidents related to subcontracting, just behind construction workers." (<http://osha.europa.eu/en/topics/maintenance/index.html>)

As recommended by the EU-OSHA, the parent company should conduct risk assessment on the hazards in maintenance work activities with subcontracting workers in the process before entrusting the work to the subcontractor. Also, risk communication between supervisors of the parent company and subcontracting workers is important. In relation to these suggestions, a recent project model in Korea, a cooperative project between a parent company and a subcontractor on safety and health, indicates the importance of a cooperative relationship between the parent company and its subcontractor to reduce diverse risks in the workplace.

In conclusion, we need comprehensive research to grasp the exact status of *risk transfer* to help us understand how to reduce industrial accidents in subcontractors. For the present, readers are encouraged to be aware of the risks involved in maintenance work activities.

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