

## Abstract

### A Study on Revised Schemes of the Enforcement Regulations on Employment Restriction in the Hazardous and Dangerous Works

The objectives of this study are to define the hazardous and dangerous works and to clarify their scopes, and to determine the qualification for working safely in the enforcement regulations on employment restriction in the hazardous and dangerous works. Surveys of domestic and foreign regulations and previous studies, analysis of fatal accidents for last 10 years, and expert interviews and questionnaires were performed.

#### **The results of this study are as follow:**

Works sustained in the enforcement regulations on employment restriction in the hazardous and dangerous works are blasting works, control of tower crane, inspection and maintenance of elevator and lift, operation of on board lifting machine.

Because of enforcement redundancy in other regulations, acts or laws, some works have to be deleted in the enforcement regulations on employment restriction in the hazardous and dangerous works. Those are works of handling pressure vessel enforced by the safety management law of high pressure gas, handling electric facilities by

the electricity enterprises act, handling boilers by the energy use rationalization act, controlling construction machinery by the construction machinery act, and handling radiation by the atomic energy law.

Works that handle viscous materials using roller machine such as rubber or ebonite were analyzed to be eliminated in the enforcement regulations on employment restriction in the hazardous and dangerous works.

Some works were needed to improve the scope of works and qualifications of employment. Scopes of works that apply heat or weld or cut metals using inflammable gas and oxygen, works that manufacture and handle explosive, ignitive and inflammable materials, and works that install or dismantle steel framed structures and pipes were analyzed to be too ambiguous to enforce regulations. And employment qualification of works that manufacture and handle explosive, ignitive and inflammable materials, works that install or dismantle steel framed structures and pipes, control of tower crane, inspection and maintenance of elevator and lift, etc. were analyzed to be needed further investigations.

And some works should be added in the enforcement regulations on employment restriction in the hazardous and dangerous works. They are slinging of hoisting mechanism and works of signalman of crane and heavy equipments.

These findings were obtained by the research for short periods. For revising the enforcement regulations on employment restriction in

the hazardous and dangerous works, further researches should be needed. Especially, 13 cases of works - works that apply heat or weld or cut metals using inflammable gas and oxygen, works that manufacture and handle explosive, ignitive and inflammable materials, electric works of high voltage in the dead wires and in the live wires, works that install or dismantle steel framed structures and pipes, control of overhead traveller cranes, works that install or dismantle supporters of sheathing, works that install or dismantle foams, works that install or dismantle scaffolds, works that install or dismantle tower cranes, and works in the underwater using submerging equipments of scuba or surface supplied air, slinging of hoisting mechanism, works of signalman of crane and heavy equipments, and control of crane - have to be clarified in the scope of works and employment qualification. In addition, the schemes of special and periodic educations in safety and health have to be reviewed simultaneously with the enforcement regulations on employment restriction in the hazardous and dangerous works.