THE DEVELOPMENT AND STATE OF OCCUPATIONAL HEALTH AND SAFETY IN CHINESE FORESTRY

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ABSTRACT  This paper is a survey of the development and current state of occupational health and safety in Chinese forestry and a general introduction to the administrative system and structure of working health and safety in the Chinese forestry system. It also describes some accomplishments of the administrative units of forestry occupational safety in recent decades and the important roles of investigation and research in forestry accidents. Some suggestions and schemes for developing scientific research on occupational health and safety and its application in forestry production are presented.

Key words: Forestry production, Occupational health and safety, Workplace hazards, Chainsaw safety, Ergonomics

It is well-known that forestry is a dangerous industry and that the frequency and severity of forestry accidents are well above the overall industrial average. This high rate occurs because forestry work is generally characterised by a combination of natural and material risks to the health and safety of forestry workers [12]. In the northeast part of China, the importance of occupational safety in forestry is even more obvious because of the large population involved in this industry and the unfavourable climatic conditions. It has become apparent that forestry work cannot be accomplished effectively and safely without considering occupational health and safety.

In 1953, China began a period of economic construction under state plans and began to pay attention to occupational health and safety in forestry. During that period, some safety equipment, operational methods, and advanced mechanical equipment were introduced into the forestry sector. Many previously manual tasks, such as felling, logging and hauling, have been gradually taken over by machines.

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From 1956 to 1963, some safety regulations, such as "the safety and health regulation of factories", "the safety technical regulation of construction engineering" and "the regulation of the accidents report of death and injury of workers" and so on, were issued by the state council of China. According to the requirements of these regulations, in all government forestry enterprises, administrative units for safe production were set up. Special occupational health and safety staff in forestry were authorized by local governments. Some forestry administration units also issued operational regulations for safety techniques and provided protective equipment and nutritional food to forestry workers.

Since 1978, the occupational safety of forestry came into a new and important development phase in China. According to the national policy of "safety first and emphasis in prevention", forestry administrative units at different levels gradually set up regulations and programs based on the system of job responsibility for safe production. Through efforts over several years, rates of accidental death and injury to workers in forestry over the whole country decreased. During the period of the sixth 5—year plan, the number of deaths and serious injuries to forestry workers decreased by 38% and 47% respectively compared with the number in the period of the fifth 5—year plan. The number of deaths and serious injuries to workers in timber production decreased by 38% and 49% for the same period. In 1986, the number of deaths and serious injuries to forestry workers nationwide decreased by 11% and 6% compared with 1985, and by 33% and 23% compared with 1984.

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Laws and regulations for occupational safety. In addition to enforcing the national laws and regulations of occupational safety, the Chinese Ministry of Forestry has issued a series of regulations for working safety according to the practice and experience of forestry production. For example, in 1979, the Ministry of Forestry issued "The System of Job Responsibility for Safe Production in Forestry". In 1986, it issued "Regulations for Safe Techniques of Logging and Timber Transportation". Some local administrative units and forestry enterprises also issued their own regulations for safe production in forestry jobs. Following these regulations, a new system for occupational safety in forestry for the whole country was established. This system has played a very important role for occupational health and safety in Chinese forestry.

Establishment of administrative units. Generally, forestry job safety has been under the control of a system of national supervision, governmental administration and a public superintendent. At the national level, there were occupational health and safety offices in the Ministry and at the provincial level. There were also administrative organizations in charge of safe production in local forestry areas. Up until 1986, there were 3835 professional staff members for safety technique and safety supervision. Among these, 400 members were authorized by the government as