

National Profile Report on Occupational Safety and Health in China

Forward

2012 marks the 10th anniversary of China's promulgation of two important laws on occupational safety and health (OSH): the Law of the People's Republic of China on Work Safety and the Law of the People's Republic of China on the Prevention and Control of Occupational Diseases. Also ten years ago, the State Administration of Work Safety (SAWS) and the International Labour Organization (ILO) jointly co-sponsored the first biennial China International Forum on Work Safety in Beijing, which has become an important international event in the field of occupational safety and health in China and in the world.

Over the past decade, we have witnessed the continual improvement of occupational safety and health in China. The principle of safe development has been written into the national plan for social and economic development; national OSH policies and programmes have kept pace with social and economic development; two national laws are now under revision for further improvement of the legal framework as a basis of rule of law; a preventative safety and health culture is becoming popular with government, employers and workers; good practices on work safety standardization are spreading among enterprises as part of a self-regulatory mechanism that strives to promote both business and OSH excellence for sustainable business development.

Developing a preventative safety and health culture is a long journey, along which a national OSH profile can record not only the highlights and milestones, but also lessons learned and gaps in the development of a national OSH system. This is why the ILO helped publish the first edition of the National OSH Profile in China in 2004. This second edition of the National OSH Profile has been prepared following the principles of the ILO Convention on Promotional Framework for Occupational Safety and Health, 2006 (No.187), and reflects the latest OSH developments in China.

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Director, ILO Office for China and Mongolia
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Abbreviations

ACFTU: All-China Federation of Trade Unions
ADB: Asian Development Bank
AICM: Association of International Chemical Manufacturers
APOSHO: Asia Pacific Occupational Safety & Health Organization
AQSIQ: General Administration of Quality Supervision, Inspection and Quarantine
CDC: Chinese Center for Disease Control and Prevention
CEC: China Enterprises Confederation
CICETE: China International Center for Economic and Technical Exchanges
CNTA: China National Tourism Administration
COSHA: China Occupational Safety and Health Association
CPCIA: China Petroleum and Chemical Industry Association
IALI: International Association of Labour Inspection
ILO: International Labour Organization
ISSA: International Social Security Association
MEP: Ministry of Environmental Protection
MHURD: Ministry of Housing and Urban-Rural Development
MIIT: Ministry of Industry and Information Technology
MLR: Ministry of Land and Resources
MOA: Ministry of Agriculture
MOE: Ministry of Education
MOFCOM: Ministry of Commerce
MOH: Ministry of Health
MOHRSS: Ministry of Human Resources and Social Security
MOST: Ministry of Science and Technology
MOT: Ministry of Transport
MPS: Ministry of Public Security
MOR: Ministry of Railways
MWR: Ministry of Water Resources
NBS: National Bureau of Statistics
NDRC: National Development and Reform Commission
NGO: Non-Governmental Organization
NWEMC: National Workplace Emergency Management Center
OECD: Organization for Economic Co-operation and Development
OSH: Occupational Safety and Health
SASAC: State-owned Assets Supervision and Administration Commission
SARFT: State Administration of Radio, Film and Television
SAWS: State Administration of Work Safety
SACMS: State Administration of Coal Mine Safety
SFA: State Forestry Administration
UNDP: United Nations Development Programme
UNIDO: United Nations Industrial Development Organization
WBG: World Bank Group

WHO: World Health Organization

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1. Occupational Safety and Health Legislation

1.1 Legislative System of Occupational Safety and Health

The legislative system of occupational safety and health in China is based on the Constitution, and consists of laws, administrative regulations, local regulations, departmental rules, local rules and OSH standards.

The laws are enacted by the National People's Congress (NPC) and its Standing Committee; administrative regulations are enacted by the Central People's Government of China (The State Council); local regulations are made by the People's Congress or its Standing Committee at the level of province, municipality or autonomous region, or specifically designated city (i.e. municipal Standing Committees); Departmental rules are enacted by departments, committees and organizations directly under the State Council; local rules are enacted by the People's Government of provinces, autonomous regions and municipalities, and Standing Committees in specifically designated cities; the Standardization Administration of China (SAC) is in charge of unified management of standardization throughout the country and is responsible for setting national standards. Industry standards are set by departments in charge of industry under the State Council, and shall be submitted to the SAC for record.

1.2 Occupational Safety and Health Requirements in the Constitution

The Constitution of the People's Republic of China, adopted at the Fifth Session of the Fifth National People's Congress on December 4, 1982, includes the following major provisions related to occupational safety and health: the State creates conditions for employment, enhances occupational safety and health, improves working conditions and, on the basis of expanded production, increases remuneration for work and welfare benefits. The State provides necessary vocational training for citizens before they are employed. Working people have the right to rest. The State expands

facilities for working people's rest and recuperation, and prescribes working hours and vacation entitlements for workers and staff. Citizens have the right to material assistance from the State and society when they become old, ill or disabled. The State is to develop social insurance, social relief and medical and health services to which citizens are both entitled and have a right to. Women enjoy equal rights with men in all spheres of life, including political, economic, cultural, social and family life. The State is to protect the rights and interests of women, and apply the principle of 'equal pay for equal work' to men and women alike.

1.3 Major OSH Laws

1.3.1 Law on Work Safety

The Law of the People's Republic of China on Work Safety came into effect on November 1, 2002. Its main contents include: General Provisions; Work Safety Assurance in Production and Business Units; Rights and Duties of Employees; Supervision and Control over Work Safety; Accident Rescue, Investigation and Handling; and Legal Responsibility and Supplementary Provisions.

The Law was enacted to enhance supervision and controls over work safety, prevent accidents caused by a lack of work safety, lower the frequency of workplace accidents, ensure the safety of people's lives and property and promote the development of the economy.

The Law on Work Safety is applicable to units engaged in production and business activities (hereinafter referred to as 'production and business units') within the territory of the People's Republic of China. Where there are other provisions in relevant laws and administrative regulations governing fire protection, road traffic safety, railway traffic safety, waterway traffic safety and civil aviation safety, those provisions shall be applied.

1.3.2 Law on Safety in Mines

The Law of the People's Republic of China on Safety in Mines came into effect

on May 1, 1993. Its main contents include: General Provisions; Guarantees for Safety in Mine Construction; Safety in Exploitation of Mines; Safety Management in Mining Enterprises; Supervision and Control over Mining Safety; Investigation of Mine Accidents; Legal Responsibilities and Supplementary Provisions.

The Law was enacted to ensure safety in mines, prevent mining accidents and protect the personal safety of workers and staff at mines, and to promote the development of the mining industry.

All Chinese citizens, legal persons or other organizations engaged in activities related to the exploitation of mineral resources conducted within Chinese borders, as well as in other sea areas under its jurisdiction, must abide by this Law.

1.3.3 Law on the Prevention and Control of Occupational Diseases

The Law of the People's Republic of China on the Prevention and Control of Occupational Diseases, which came into effect on May 1, 2002, contains seven chapters: General Provisions; Preliminary Prevention; Protection and Control in the Course of Work; Diagnosis of Occupational Diseases and Security for Occupational Disease Patients; Supervision and Inspection; Legal Responsibilities and Supplementary Provisions.

The Law was enacted for the purpose of preventing, controlling and eliminating occupational disease hazards, preventing and controlling occupational diseases, protecting the health and related rights and interests of workers, and promoting the development of the economy.

1.3.4 Labour Law

The Labour Law of the People's Republic of China came into effect on January 1, 1995. Its main contents include 13 chapters: General Provisions; Promotion of Employment; Labour Contracts and Collective Contracts; Working Hours, Rest and Vacations; Wages; Occupational Safety and Health; Special Protection for Female and Juvenile Workers; Vocational Training; Social Insurance and Welfare; Labour Disputes; Supervision and Inspection; Legal Responsibility and Supplementary

Provisions.

The Law was enacted for the protection of the legitimate rights and interests of workers, adjusting labour relationships, establishing and safeguarding a labour system suited to the socialist market economy, and promoting economic development and social progress.

The Law is applicable to all enterprises, individually-owned economic organizations (hereinafter referred to as the 'employing units') and associated workers within the borders of the People's Republic of China. State organs, institutional organizations, social groups, and associated workers in contractual relationships shall abide by this Law.

1.3.5 Labour Contract Law

The Labour Contract Law of the People's Republic of China came into effect on January 1, 2008. Its contents include: General Provisions; Conclusion of Labour Contracts; Performance and Modification of Labour Contracts; Revocation and Termination of Labour Contracts; Special Provisions; Supervision and Inspection; Legal Responsibility and Supplementary Provisions. Articles related to occupational health and safety are as follows:

Article 4: Employing units shall establish comprehensive labour rules and regulations to ensure that labourers enjoy their labour rights and fulfill their labour obligations. When developing, modifying or deciding rules or important issues which concern the immediate interests of workers, such as occupational safety and health, employing units shall put forward plans and opinions through the Workers' Representative Congress or through discussion with all workers. Decisions shall be made through consultation with trade unions and workers' representatives on an equal footing.

Article 8: When recruiting a worker, the employing unit shall truthfully inform the worker with the job description, working conditions, the place of work, occupational hazards, work safety conditions, remuneration, and other information the worker wishes to learn about. The employing unit has the right to make inquiries

about basic information concerning the worker, directly related to the labour contract. Worker should answer honestly.

Article 32: A worker shall not be held in breach of his/her labour contract if he/she refuses to obey an illegal command from the manager of the employing unit, or to perform dangerous work. The worker has the right to criticize, accuse and lodge a complaint against the employing unit with regard to working conditions that constitute a threat to the life and health of the worker.

Article 38: If an employing unit violates rules and compulsively orders the worker to perform dangerous operations at the risk of his or her life, the worker can immediately terminate the labour contract without notifying the employing unit in advance.

Article 51: Workers can enter into a collective contract on such items as labour remuneration, working hours, rest and paid leave, occupational health and safety, and insurance benefits through equal consultation with an employing unit. A draft collective contract should be submitted to the Workers' Representative Congress and be approved through discussion.

Article 76: Competent departments, respectively responsible for construction, public health, work safety administration and inspection under governments at, or above, the county level, should carry out supervision and inspection within their own respective mandates on issues concerning the labour contract system to be implemented by employing units.

Article 88: Where an employing unit gives instructions, in violation of rules and regulations or by force, for a worker to perform dangerous operations at the risk of his or her life, or provides poor working conditions or a severely polluted environment, resulting in serious damage to the physical and mental health of the worker, the employing unit shall be subject to administrative sanction in accordance with the law. If such an act constitutes a crime, it should be investigated for criminal liability in accordance with the law; if the worker suffers any harm or loss as a result thereof, the employing unit shall be liable for compensation.

1.3.6 Fire Protection Law

The Fire Protection Law of the Peoples' Republic of China came into effect on September 1, 1998 and was revised on October 28, 2008. The revised Law took effect on May 1, 2009.

Its main contents include: General Provisions; Fire Prevention; Fire Protection Organizations; Fire Fighting and Rescue; Supervision and Inspection; Legal Responsibility; Supplementary Provisions.

This Law was enacted for the purpose of preventing fire and reducing fire damage, safeguarding citizens' personal safety, the security of public property and citizens' property, maintaining public security and ensuring a smooth socialist modernization process.

1.3.7 Emergency Response Law

The Emergency Response Law of the People's Republic of China came into effect on November 1, 2007. This Law is the first law in China concerning emergencies. Emergencies include natural disasters, such as typhoons, earthquakes and mine disasters (naturally occurring and resulting in, or possibly causing, serious damage to society), accidents, disasters, public health incidents and social safety incidents.

The Law has 70 articles in 7 chapters: General Provisions; Prevention and Emergency Preparedness; Monitoring and Pre-Warning; Emergency Disposition and Rescue; Emergency Recovery and Reconstruction; Legal Responsibility and Supplementary Provisions.

To handle emergency incidents and establish and perfect the effective system of incident prevention and emergency preparedness, the Emergency Response Law requires local governments at all levels and the relevant departments in the local governments to make and revise in a timely manner their corresponding emergency response plans, and ensure strict implementation.

1.3.8 Criminal Law

The Criminal Law of the People's Republic of China came into force on October 1, 1997. From 1997 to the present, the NPC has adopted eight Criminal Law amendments. The sixth amendment to the Criminal Law adopted on June 29, 2006 made important modifications and supplements to the provisions, including increasing penalties for OSH violations and criminalizing concealing and misstating accidents, accident rescue delay, etc.

1.4 Major OSH Regulations

1.4.1 Regulations on Coal Mine Safety Inspection

The Regulations on Coal Mine Safety Inspection came into effect on December 1, 2000. This regulation was enacted as a safeguard, ensuring the safety of coal mines, regulating coal mine inspection and protecting the safety and health of coal mine workers. The main contents include: coal mine safety inspection systems, coal mine safety inspection organizations and their responsibilities, the rights of coal mine safety inspectors, main inspection content, provisions for coal mine accident investigation and handling, and the legal responsibility for the violation.

1.4.2 Special Regulations of the State Council on Preventing Coal Mine Accidents

The Special Regulations of the State Council on Preventing Coal Mine Accidents came into effect on September 3, 2005. These Regulations were enacted for the timely identification and elimination of hazards in coal mines, realizing responsibilities for coal mine safety, preventing coal mine accidents, and ensuring that coal mines are safe for people. The main contents of these regulations include: the scope of a 'major hazard', provisions on coal mine administrative licenses, provisions on suspending production and resuming production, requirements for closing down coal mines, and legal consequences for breaking these laws.

1.4.3 Regulations on Safety Management in Construction Projects

The Regulations on Safety Management in Construction Projects came into effect on February 1, 2004. These aimed to strengthen safety supervision and management in construction projects, and safeguard people's lives and property. The main contents include: safety responsibility of owners; the safety responsibilities of survey, design, and construction supervision units and other relevant units; safety responsibility of contractors; provisions of safety supervision and management on construction projects; and legal consequences for breaking these laws.

1.4.4 Regulations on the Safe Administration of Hazardous Chemicals

The Regulations on the Safe Administration of Hazardous Chemicals came into force on March 15, 2002, replacing and abolishing the old Regulations, adopted by the State Council on February 17, 1987. The Regulations define the basic requirements for the safe management of hazardous chemicals, provisions for safety management in the process of hazardous chemicals production, storage, use, transportation and registration, as well as legal consequences for the violation of these laws.

On March 2, 2011, the State Council issued the revised Regulations on the Safe Administration of Hazardous Chemicals, which came into effect on December 1, 2011. Besides redefined responsibilities for relevant departments on the safe supervision of hazardous chemicals, the Regulations made the following changes in accordance with new situations following institutional reform:

(1) To establish a licensing system for the use of hazardous chemicals; (2) to appropriately devolve power for examination and license approval for hazardous chemicals management to lower levels; (3) to make new provisions on issue of poisonous chemicals road transport permit, so that the shippers can easily acquire the permit; (4) to liberalize hazardous chemical transportation in inland waters and utilize classification management techniques; (5) to improve relevant regulations on

hazardous chemical registration and identification, and (6) to increase administrative punishments for violation of laws.

1.4.5 Regulations on Fireworks and Firecracker Safety Management

The Regulations on Fireworks and Firecracker Safety Management came into force on January 21, 2006. These Regulations are applicable in the production, circulation, transportation and lighting of fireworks and firecrackers.

These Regulations have clear provisions regarding the implementation of a licensing system in the production, circulation and transportation of fireworks and firecrackers, and provisions for the use of fireworks during private parties or large-scale fireworks shows. The duties of the work safety supervision and inspection department, the public security department and quality supervision and inspection department are clearly defined in the regulations, as are the responsibilities of private enterprise managers of fireworks and firecracker production, circulation and transportation as well as organizers' holding of fireworks evening parties or other large-scale fireworks shows.

1.4.6 Regulations on Work Safety Licenses

The Regulations on Work Safety Licenses came into effect on January 13, 2004. Their main contents include: the role and scope of work safety licenses, specifications for departments delivering administrative permission on work safety, and the supervision and management of administrative permission.

The regulations were enacted to strictly regulate conditions of work safety, further strengthen work safety supervision and prevent and reduce accidents.

The Regulations are applicable to enterprises engaged in mining, construction, the production of hazardous chemicals, fireworks and firecrackers, and blasting equipment for civil use. They make provisions for implementing a work safety licensing system for high-risk enterprises in the industrial, mining, commercial and trade sectors in order to effectively reduce all kinds of accidents.

1.4.7 Regulations on Civil Explosive Products Safety Management

The Regulations on Civil Explosive Products Safety Management came into effect on September 1, 2006. They replaced and abolished the Regulations of the P.R.C. on the Management of Civil Explosive Products, issued by the State Council on January 16, 1984.

The term ‘civil explosive products’ mentioned in the present Regulations refers to powders, dynamites and other relevant products, as well as igniting and detonating materials such as detonators and blasting fuses for non-military purposes that have been listed in the Table of the Names of Civil Explosive Products.

These Regulations are applicable to the production, sale, purchase, export and import, transportation, blasting operation and storage of civil explosive products and the sale and purchase of ammonium nitrate.

1.4.8 Regulations on Special Equipment Safety Inspection

The Regulations on Special Equipment Safety Inspection came into effect on June 1, 2003, replacing and abolishing the Provisional Regulation on Safety Inspection of Boilers, Pressure Containers promulgated by the State Council in 1982.

The ‘special equipment’ referred to in the present Regulations include pressure vessels (including gas cylinders), pressure pipelines, elevators, lifting appliances, passenger cableways, and large amusement devices, all of which are related to human safety or have high risks.

On January 24, 2009, the State Council announced the Decision on Amending Regulations on Safety Inspection of Special Equipment, and the new regulations came into force on May 1, 2009. Major modified contents include: increasing provisions on energy conservation management of high energy-consuming special equipment according to energy conservation and emission reduction requirements; increasing and improving the equipment accident investigation and classification system to adapt to the actual needs of special equipment accident investigation; partial administrative licensing power, currently exercised by the special equipment safety administration

department of the State Council, to special equipment safety supervision and administration departments at the provincial, autonomous region, and municipal level, to make administrative licensing more convenient and effective; clearly listing the safety supervision of special motor vehicles inside the workplace (or factory), filling of moveable pressure vessels and the non-destructive testing of special equipment into the regulatory range of the new regulation, and encouraging the enforcement of special equipment liability insurance; and improving legal responsibility and increasing penalties for violations.

1.4.9 Regulations on Safety Supervision and Management of Agricultural Machinery

The Regulations on Safety Supervision and Management of Agricultural Machinery came into force on November 1, 2009. The Regulations were enacted to strengthen safety supervision and management of agricultural machinery, to prevent and reduce the number of agricultural machinery accidents, and ensure the safety of people's life and property.

Agricultural machinery refers to mechanical equipment used for agricultural production, agricultural products processing and related farming activities.

The Regulations are applicable to activities related to production, sale, repair, operation, and safety supervision and administration of agricultural machinery within the territory of the People's Republic of China.

1.4.10 Regulations on Ascertaining Administrative Responsibility in Extraordinarily Serious Safety Accidents

The Regulations on Ascertaining Administrative Responsibility in Extraordinarily Serious Safety Accidents came into force on April 21, 2001. It is the first administrative regulation for ascertaining administrative responsibility of governments at all levels and of relevant departments in safety accidents. The core content of these regulations relates to the establishment of an accountability system in accidents.

The scope of administrative responsibility for extraordinarily serious safety accidents regulations pertain to seven kinds of accidents: extraordinarily serious fire accidents, extraordinarily serious traffic accidents; extraordinarily serious safety accidents caused by poor construction quality; extraordinarily serious safety accidents involving civil explosive products and hazardous chemical products; extraordinarily serious safety accidents in coal mines and other mines; extraordinarily serious safety accidents on special equipment; and other extraordinarily serious safety accidents.

If primary and secondary schools, in any form, organize students to engage in the work involving flammable, explosive, toxic, harmful, and dangerous goods or other hazardous elements, the chief leaders of governments and education departments of the county and town, and the headmaster, shall be investigated for administrative responsibility, based upon school affiliation.

1.4.11 Regulations on Work Injury Insurance

Regulations on Work Injury Insurance came into force on January 1, 2004, and are the first administrative regulations on work injury insurance in China. Its primary contents include: General Provisions; Work Injury Insurance Funds; Determination of Work-Related Injuries; Assessment of Working Ability; Work-Related Injury Insurance Benefits; Supervision and Administration; Legal Responsibility; and Supplementary Provisions. These Regulations are formulated in order to guarantee the availability of medical treatment and economic compensation to staff and workers who suffer from work-related accidental injury or occupational disease, to promote prevention of work-related injury and vocational rehabilitation, and to mitigate work-related injury risks at employing units.

These Regulations provide that all types of enterprises and sole traders that hire workers within the territory of the People's Republic of China shall participate in work-related injury insurance and pay work-related injury insurance premiums for all staff and workers, or employees in their work units, in accordance with the provisions hereof. The Regulations also contain provisions for work injury benefits.

On December 8, 2010, the State Council made significant changes to the Regulations on Work Injury Insurance: the first was to expand the scope of application of work injury insurance; the second was to simplify the procedure for work injury certification, appraisal and dispute processing; the third was to improve standards for work injury benefits; the fourth was to reduce the benefit items paid by employing units and increase the benefit items paid by work-related injury insurance funds.

1.4.12 Regulations on Reporting, Investigation and Handling of Work Safety Accidents

The Regulations on Reporting, Investigation and Handling of Work Safety Accidents came into force on June 1, 2007. Their main contents include: General Provisions; Accident Reporting; Accident Investigation; Accident Handling; Legal Responsibility; and Supplementary Provisions. The Regulations were enacted to strengthen the reporting, investigation and handling of accidents, implement an accountability system for accidents, and prevent and reduce accidents.

The Regulations are applicable to the reporting, investigation and handling of the work safety accidents that have led to injuries, fatalities or great economic losses; and are not applicable to the reporting, investigation and handling of environmental pollution accidents, nuclear facility accidents and accidents arising out of scientific research and production for national defense.

1.5 Local Regulations and Departmental Rules

1.5.1 Local Regulations

By the end of 2010, 31 provinces, autonomous regions and municipalities in Chinese mainland had all issued Regulations on Work Safety and a series of matching local regulations following the implementation of the Law on Work Safety.

1.5.2 Departmental Rules

(1) State Administration of Work Safety (SAWS)

According to statistics from 2006 to 2010, SAWS formulated a total of 37 Departmental Rules, including: Measures on Administrative Penalties for Violations of Work Safety; Provisions on Administrative Review of Work Safety; Tailing Pond Safety Supervision and Management Regulations; Temporary Measures on Administrative Review of Work Safety; Measures on the Management of Work Safety Training; Provisions on the Management of Certified Safety Engineers; Provisions on the Management of Testing and Inspection Institutions of Work Safety; Temporary Provisions on the Identification and Control of Hazards; Measures on Emergency Response Plan Management; Provisions on the Management of Special Operator Protection Technology Training and Examination; Provisions on the Supervision and Administration of Work Safety in Metallurgical Enterprises; Temporary Provisions on Supervision and Administration of Occupational Health at the Workplace; Measures on the Management of Reporting of Occupational Hazards at Workplaces; Provisions for Safe Operations in the Offshore Petroleum Industry; Implementation Measures on Fireworks and Firecracker Business Authorization; Implementation Measures on the Safety Licensing of Hazardous Chemical Construction Projects, etc.

(2) Other Departmental Rules

According to statistics from 2006 to 2010, other ministries which are responsible for the supervision and administration of work safety (such as the Ministry of Public Security, the Ministry of Industry and Information Technology, the Ministry of Communications, the Ministry of Construction and the Ministry of Agriculture), have formulated 78 departmental rules on occupational safety and health, including: Provisions on the Supervision and Inspection of Fire Protection; Provisions on Fire Protection Management of Construction Projects; Provisions on Fire Accident Investigation; Measures on Approval Management of Civil Explosives for Construction Purpose; Measures on the Safety Supervision and Administration of Highway and Waterway Projects; Rules on Ship Safety Inspection; Provisions on

Road Transportation Management for Radioactive Substances; Provisions on Safety Information Management of Civil Aviation; Temporary Provisions on Usage Management of Personal Protective Equipment in Construction Accidents; Measures on the Reporting of Agricultural Work Safety Accidents; Provisions on Safety Inspection on Hoisting Machinery.

1.6 OSH Standards

According to Chinese law, all standards for ensuring safety and health of people and property safety are compulsory, and must be implemented. OSH standards are compulsory and occupy an important position in the Chinese OSH legislation system, as extensions of laws and regulations on OSH. These standards have the same legal effect.

From 2006 to 2010, China formulated and revised 323 standards and specifications related to OSH, including 112 national standards and 211 industrial standards, such as: the Identification of Major Hazard Installations for Dangerous Chemicals; Basic Norms for Work Safety Standardization of Enterprises; Codes on Coal Mine Safety; Codes on Metal and Nonmetal Mine Safety, Welder Protective Gloves, and Norms on Paint and Painting Operation Safety.

1.7 Ratified ILO Conventions

Though ILO conventions are not in the framework of Chinese laws, the related ILO conventions ratified by China have been incorporated into relevant Chinese laws through legal procedures, so these conventions can be implemented in China.

By the end of 2010, China had ratified 25 ILO conventions, among which 15 are related to OSH.

A list of ILO Conventions in relation to OSH ratified by China is shown in table 1-1.

Table 1-1: ILO Conventions in relation to OSH, ratified by China

No.	C. No.	Conventions	Ratification date
1	7	Minimum Age (Sea) Convention, 1920	02.12.1936
2	14	Weekly Rest (Industry) Convention, 1921	17.05.1934
3	15	Minimum Age (Trimmers and Stokers) Convention, 1921	02.12.1936
4	16	Medical Examination of Young Persons (Sea) Convention, 1921	02.12.1936
5	19	Equality of Treatment (Accident Compensation) Convention, 1925	27.04.1934
6	27	Marking of Weight (Packages Transported by Vessels) Convention, 1929	24.06.1931
7	32	Protection against Accidents (Dockers) Convention (Revised), 1932	30.11.1935
8	45	Underground Work (Women) Convention, 1935	02.12.1936
9	59	Minimum Age (Industry) Convention (Revised), 1937	21.02.1940
10	138	Minimum Age Convention, 1973	28.04.1999
11	144	Tripartite Consultation (International Labour Standards) Convention, 1976	02.11.1990
12	155	Occupational Safety and Health Convention, 1981	25.01.2007
13	167	Safety and Health in Construction Convention, 1988	07.03.2002
14	170	Chemicals Convention, 1990	11.01.1995
15	182	Worst Forms of Child Labour Convention, 1999	08.08.2002

2. National OSH Supervision and Administration Systems

2.1 Work Systems for National OSH Supervision and Administration

The organizational structure of the national OSH supervision and administration system is shown as Chart 2-1.

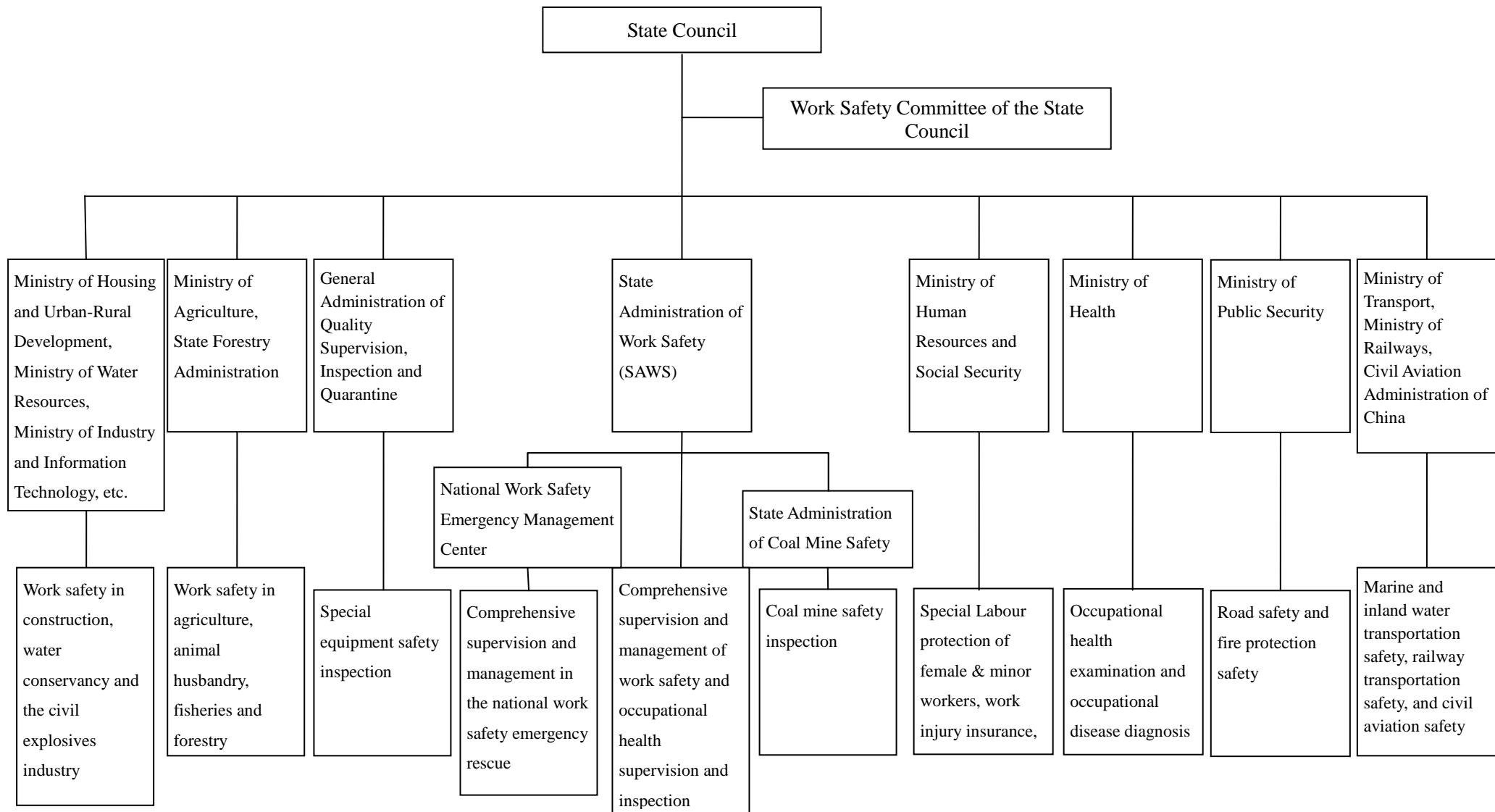


Chart 2-1 Organizational Structure of the National OSH Supervision and Administration System

The State Administration of Work Safety (SAWS) is an organization directly under the State Council, responsible for the overall supervision of work safety in factories, mines, commercial and trade businesses and inspection of workplace occupational health.

Relevant departments and organizations of the State Council are respectively in charge of safety supervision and administration in the areas of transportation, railways, civil aviation, water conservancy, construction, national defense, postal service, telecommunications, tourism, special equipment, fire protection, and nuclear safety. The SAWS, from the perspective of comprehensive supervision and administration of national work safety, is responsible for directing, coordinating and supervising the above-mentioned departments' work safety supervision and administration activities. The General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) is responsible for operators' appraisal, safety inspection and special equipment accident investigation.

2.2 Work Safety Committee of the State Council

2.2.1 Structure of Organization

The Director of the Work Safety Committee of the State Council is one of the Vice Premiers of the State Council. The Minister for the State Administration of Work Safety, the Executive Vice Minister of the Ministry of Public Security, and a Vice Secretary General of the State Council together are Deputy Directors of the Work Safety Committee of the State Council. Members of the Work Safety Committee of the State Council are composed of the chief, or deputy leaders, from the following organizations: the National Development and Reform Commission, Ministry of Education, Ministry of Science and Technology, Ministry of Industry and Information Technology, Ministry of Public Security, Ministry of Supervision, Ministry of Justice, Ministry of Finance, Ministry of Human Resources and Social Security, Ministry of Land and Resources, Ministry of Environmental Protection, Ministry of Housing and Urban-Rural Development, Ministry of Communications, Ministry of Railways,

Ministry of Water Resources, Ministry of Agriculture, Ministry of Commerce, Ministry of Health, State Administration for Industry and Commerce, General Administration of Quality Supervision, Inspection and Quarantine, State Administration of Radio, Film and Television, General Administration of Sports, State Forestry Administration, National Tourism Administration, Legislative Affairs Office of the State Council, State Council Information Office, China Meteorological Administration, State Electricity Regulatory Commission, Propaganda Department of the Central Committee of the Communist Party, State Commission Office for Public Sector Reform, All-China Federation of Trade Unions, the Communist Youth League of China, General Staff of the People's Liberation Army (PLA), and the Headquarters of the Armed Police.

2.2.2 Main Functions

(1) To study, plan, guide and coordinate national work safety under the leadership of the State Council.

(2) To study and put forward major guidelines and policies on national work safety.

(3) To analyze the national work safety situation and solve major issues concerning work safety.

(4) To coordinate with the General Staff of the PLA and the Headquarters of the Armed Police to assemble forces to participate in extraordinarily serious safety accident rescue and relief efforts, if necessary.

(5) To accomplish other work safety tasks assigned to it by the State Council.

2.2.3 Administrative Office

The Work Safety Committee Office of the State Council is the Secretariat of the Committee, located in the SAWS. The Minister and Vice Minister of the SAWS work respectively as the director and deputy director of the Office.

The main functions of the Work Safety Committee Office of the State Council are as follows:

(1) To study and put forward suggestions on major guidelines, policies and measures on work safety;

(2) To supervise, inspect, guide and coordinate the work safety activities of related departments and agencies of the State Council and people's governments at the provincial, autonomous region and municipal level;

(3) To organize general and specific safety inspections by the State Council;

(4) To participate in the study of industrial policies, capital investment, and the science and technology developments of related departments in relation to work safety;

(5) To be responsible for State Council investigations and the handling of extraordinarily serious safety accidents and their case closures;

(6) To organize and coordinate emergency rescues for extraordinarily serious safety accidents;

(7) To guide and coordinate administrative law enforcement in respect to work safety across the country;

(8) To undertake the preparation for meetings and important activities organized by the Work Safety Committee of the State Council, and supervise and inspect the implementation of resolution items adopted at meetings of the Work Safety Committee;

(9) To undertake other tasks assigned to it by the Committee.

2.3 Brief Introduction to the State Administration of Work Safety (SAWS)

2.3.1 Organization Chart

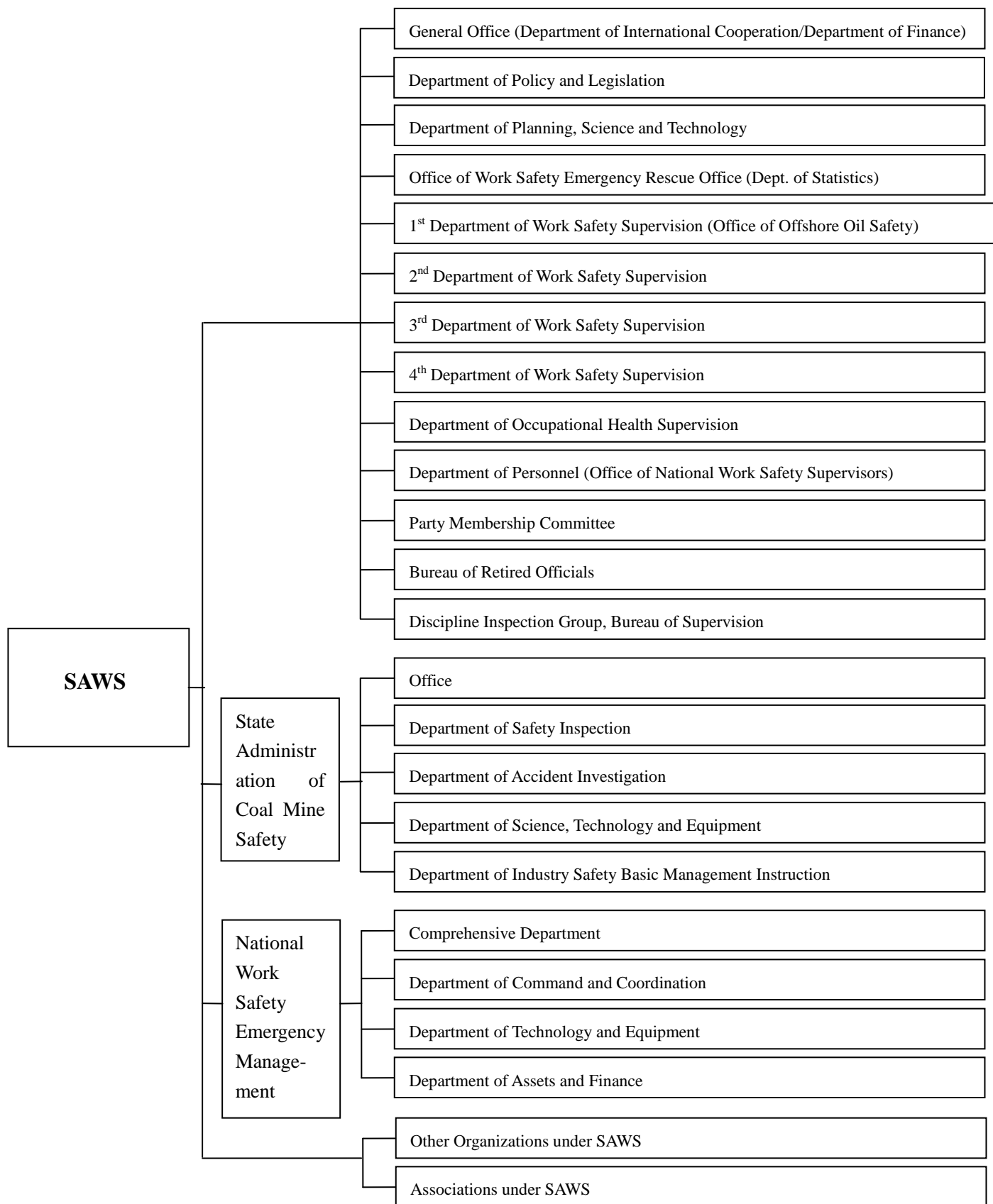


Chart 2-2 Structure of the State Administration of Work Safety

2.3.2 Main Functions

(1) To organize the drafting of comprehensive laws and administrative regulations on work safety, draw up national policies and development programs for work safety; to provide guidance and coordination for nationwide work safety; to regularly analyze and forecast work safety trends across the country; responsible for releasing national work safety information, and coordinating to solve the major issues in work safety.

(2) Comprehensive supervision and administration of work safety, rendering administrative responsibilities and authority on national work safety in accordance with law; to guide and coordinate, supervise and inspect the work safety activities of related departments and agencies of the State Council and People's Governments of various provinces, autonomous regions and municipalities; to supervise, evaluate and report performance concerning the work safety control index; to supervise the accident investigation and remedy practices.

(3) To undertake the supervision and administration of work safety at factories, mines, and commercial and trade businesses, according to principles of classification and administrative jurisdiction; to supervise and inspect the implementation of work safety laws and regulations by factories, mines and commercial and trade businesses, as well as work safety conditions and related equipment (excluding special equipment), materials and personal protective equipment according to law; to be responsible for the supervision and administration of work safety at central government-run factories, mines, commercial and trade business.

(4) To undertake the administration of safety permits for central government-run non-coal mining enterprises, hazardous chemicals, fireworks and firecracker production enterprises; to organize, guide and supervise the implementation of work safety permits systems according to laws; and to be responsible for the comprehensive supervision and administration of work safety in the production of dangerous chemicals and fireworks.

(5) To undertake occupational health supervision and inspection activities at factories, mines, commercial and trading places (excluding coal mine operation sites),

to be in charge of the administration and issuance of occupational health licenses, and to both organize and handle investigation into occupational health accidents and other illegal practices.

(6) To enact and promulgate regulations, standards and rules on work safety at factories, mines, commercial and trade business and organize their implementation; to supervise and inspect major installation hazard monitoring and hazard identification and control; to investigate and punish, according to law, production units with poor work safety conditions.

(7) To organize general and specific work safety inspections, to be in charge of organizing the investigation, handling and conclusion of extremely large accident cases, as authorized by the State Council, and to supervise the implementation of accident investigation and accountability outcomes.

(8) To organize, command and coordinate workplace emergency rescue operations, administer comprehensive work safety statistics and analysis in respect to accident injuries and fatalities, and the enforcement of work safety.

(9) To be responsible for the supervision and administration of coal mine safety inspection and draft major policies on work safety for coal industry management; to draft rules and standards for the coal industry; to guide the standardization of work safety for coal enterprises, relevant science and technology developments and the closure of coal mines; to make recommendations for the construction of major coal projects; and to review projects regarding coal mine safety technical upgrades and comprehensive gas control and utilization.

(10) To supervise and inspect, according to law and within its given responsibility, the simultaneous design, construction, and commissioning (the ‘three simultaneities’) of work safety facilities in the construction, modification or expansion of new projects.

(11) To organize, guide and supervise the development and implementation of examination procedures for special occupation practitioners (excluding coal mine and special equipment special occupation practitioners) and qualification examinations for key managers of factories and coal mines (not including the safety qualifications for

coal mine operators), commercial and trade business and work safety controllers; to supervise and inspect OSH training at factories and coal mines, commercial and trade business.

(12) To guide and coordinate inspection and testing of work safety nationwide, to supervise and administer intermediary safety organizations and safety evaluation activities, and to supervise and guide the administration of the examination and registration of certified safety engineers.

(13) To guide and coordinate administrative law enforcement in respect to work safety across the country.

(14) To organize the formulation of science and technology programs on work safety, and organize, guide and coordinate related departments and institutions in conducting major science and technology research and technical demonstration on work safety.

(15) To organize and develop international exchange and cooperation on work safety.

(16) To undertake routine work for the Work Safety Committee Office of the State Council.

(17) To undertake other tasks entrusted to it by the State Council.

2.3.3 Functions of Major Internal Departments

(1) First Department of Work Safety Supervision (Office of Offshore Oil Operation Safety)

This department is responsible for the supervision and inspection of work safety law and the implementation of regulations in non-coal mines (including geological exploration) and oil enterprises (excluding refining, chemical and oil pipeline), particularly regarding work safety conditions and the safety of equipments and facilities; to organize reviews of the design and delivery of safety facilities in major construction projects; to undertake the administration of safety permits for non-coal mining enterprises; to guide and supervise the adoption of relevant safety standards and the closure of non-coal mines lacking work safety conditions; to undertake the

comprehensive supervision and administration of work safety conditions at offshore oil facilities; to join the investigation, handle emergency rescue of major accidents in related sectors.

(2) Second Department of Work Safety Supervision

This department is responsible for guiding, coordinating and supervising the administration of work safety in sectors with their own safety administrative authorities; to participate in the investigation, handling and emergency rescue of major accidents in related sectors; to direct and coordinate work safety specific inspections and the improvement of related ministries.

(3) Third Department of Work Safety Supervision

This department is responsible for the supervision and inspection of work safety conditions at chemical (including petrol chemical), pharmaceutical, hazardous chemical, fireworks and firecracker enterprises, and the management of work safety and dangerous chemicals production permits, investigation and penalization for enterprises not providing safe work conditions. It is also responsible for comprehensive supervision and administration of work safety where dangerous chemicals are involved; to organize and guide the creation of dangerous chemicals lists and the registration of dangerous domestic chemicals; to guide work safety supervision at businesses involved in the production of non-medical toxic chemicals; to organize inspection and approval of safety facilities at major construction projects; to guide and supervise the standardization of work safety; and to join investigations, handling and emergency rescue at major accidents in related sectors.

(4) Fourth Department of Work Safety Supervision

To supervise and inspect the implementation of work safety laws and regulations in metallurgic, non-ferrous, construction material, machinery, light industry, textile, tobacco, commercial and trade sectors, the management of equipment and facility safety according to law; to organize inspection and acceptance for the design and construction of safety facilities at related major construction projects; to join investigations, handling and emergency rescue activities at major accidents in related sectors.

(5) The Department of Occupational Health Supervision

To supervise and inspect workplace occupational health at factories, mines, and commercial and trade business (excluding coal mining operations); to draft rules and standards on workplace occupational health within the scope of duty of SAWS; to punish occupational hazards accidents and illegal practices; responsibility for the issuance of occupational health licenses; to guide occupational health training; to organize guide reporting of occupational hazards and join emergency rescue operations related to occupational hazard accidents.

2.4 The State Administration of Coal Mine Safety (SACMS)

The main functions of the SACMS are as follows:

(1) To develop policies for coal mine safety; to participate in drafting laws and regulations on coal mine safety; to develop rules and standards for coal mine safety according to provision; and to propose development programs and objectives for coal mine safety.

(2) To undertake state coal mine safety inspections; to inspect and guide the coal mine safety supervision and administration of local governments; to supervise and inspect local governments over their implementation of coal mine work safety laws, regulations and standards, closure of coal mines, coal mine safety enforcement and improvement, rectification and review of accident hazards, and accountability and implementation of coal mine accident responsibility; to make recommendations and suggestions to local governments and relevant departments.

(3) To be responsible for the issuance of work safety permits for coal mines and the implementation of the coal mine safety permit system; to guide, administer and supervise the examination and issuance of coal mine certification; and to guide and supervise coal mine safety training.

(4) To be responsible for the supervision and inspection of occupational health in coal mines; to manage the issuance of occupational health licenses; to supervise the occupational health conditions of coal mines; to investigate and punish coal mine management in cases of workplace hazard accidents and other illegal practices.

(5) To be responsible for the implementation of major coal mine safety inspections, specific inspections and regular inspections; to inspect the implementation of safety laws and regulations by coal mines and their work safety conditions, the safety of equipment and facilities according to the law; to impose administrative penalties for illegal practices in coal mines.

(6) To be responsible for the release of national coal mine safety information, collecting and analyzing data on nationwide coal mine accidents and occupational hazards, organizing or participating in the investigation and handling of coal mine accidents, and supervising the implementation of accident investigations and punishment.

(7) To be responsible for the safety review and approval of major coal mine construction projects, to organize the design and end-point inspection and acceptance of safety facilities in coal mine construction projects; to investigate and punish coal mines failing to meet safety standards.

(8) To be responsible for the organization and coordination of emergency rescue during coal mine accidents.

(9) To guide scientific research on coal mine safety, and organize coal mine equipment, materials and instrument safety inspection.

(10) To direct coal mining enterprises on basic safety management; to guide and supervise the appraisal of coal mine productive capacity and the closure of coal mines with relevant authorities; to review and comment on projects related to technical upgrading activities for coal mine safety, and comprehensive control and utilization of gas.

(11) To undertake other tasks, as directed by the State Council and the SAWS.

2.5 National Workplace Emergency Management Center

The National Workplace Emergency Management Center (NWEMC) performs administrative functions for comprehensive supervision, as well as workplace emergency rescue activities, coordinating and commanding emergency rescue activities at accidents and disasters, according to the provisions of the national

emergency response plan.

Main functions include: participating in the drafting and revision of national laws and regulations on workplace emergency rescue; organizing the development of a national workplace emergency response plan; guiding and coordinating emergency rescue activities during extremely large accidents, and mobilizing the relevant forces and resources to participate in emergency rescue operations.

3. Coordination and Cooperation Mechanisms

3.1 Tripartite Coordination Mechanism at the National Level

The Trade Union Law of the People's Republic of China and the Labour Law of the People's Republic of China stipulate that trade unions and staff should participate in democratic management and equal consultation, and discuss and resolve major problems regarding labour relations through tripartite negotiation mechanisms. In August 2001, a national tripartite consultation conference system coordinating labour relations was established in China. This system was comprised of the Ministry of Labour and Social Security (now the Ministry of Human Resources and Social Security, on behalf of the government), the All-China Federation of Trade Unions (on behalf of workers) and the China Enterprises Confederation (on behalf of enterprises).

3.1.1 Government Representative

According to usual practice, the Ministry of Human Resources and Social Security (MOHRSS) participates in tripartite negotiation work on behalf of the government. After the reform of Chinese government organizations in 1998, the MOHRSS became responsible for the protection of women and under-age workers, working time, rest and leave, social insurance and welfare, wages, employment promotion and vocational training, labour dispute arbitration and conciliation, democratic management (i.e. management inclusive of trade union and worker perspectives). The SAWS is responsible for the supervision and inspection of occupational safety and health. Therefore, the SAWS will send related personnel to participate in tripartite coordination and consultation in relation to occupational safety and health.

3.1.2 Employers' Representative

The China Enterprises Confederation / China Enterprise Directors Association

(CEC/CEDA) is a coalition organization consisting of enterprises, entrepreneurs (employers) and enterprise groups. It aims to safeguard the lawful rights and interests of enterprises and entrepreneurs (employers) and coordinate labour relations on their behalf, to guide local and sectoral enterprise confederations / enterprise directors associations to establish and improve tripartite consultation mechanisms, and to participate in the coordination of labour relations. CEC/CEDA, as the only employers' representative organization in China, participates in activities hosted by the ILO and the International Organization of Employers (IOE), and develops international exchange and cooperation with other countries' employer organizations and international organizations.

CEC/CEDA established the Occupational Safety and Health Working Committee. The main functions of the Committee are: (1) To participate in activities organized by the ILO and IOE on behalf of enterprises and employers under the leadership of CEC/CEDA; (2) To participate in the formulation and implementation of OSH policies in China; and (3) To recommend guiding principles and suggestions on corporate development issues to the government; to strengthen training and information exchange on OSH and other social development issues among enterprises and entrepreneurs at home and abroad.

3.1.3 Workers' Representative

The All-China Federation of Trade Unions (ACFTU) is a mass organization of the working class formed voluntarily by Chinese workers and staff members. It consists of local trade unions and national industrial unions, representing the rights and interests of their membership and the workers. The ACFTU conducts research on major issues related to the legitimate rights and interests of workers, makes recommendations and suggestions to the State Council, and participates in the formulation of laws and regulations concerning workers' rights and interests and related policies.

The Labour Protection Department is under the ACFTU. Its main responsibilities are to participate in researching and developing draft policies, laws and regulations on occupational safety and health; to take part in investigating and handling accidents involving deaths and casualties of workers and serious occupational hazards; to take part in the review and approval of occupational safety and health facilities in new state industrial construction projects; to guide local trade unions to participate in occupational safety and health education and training programs; and to guide the work safety and health activities of local trade unions.

3.2 Coordination Mechanisms at the Enterprise Level

Generally, collective negotiation at the enterprise level is not part of tripartite coordination, but only a basis of negotiation at national, local and industrial levels. However, with increasing social attention, collective negotiation at the enterprise level has been regarded as the priority of tripartite coordination. The parties to collective negotiation at the enterprise level are employers and trade unions. The government is not always involved in negotiation, but may be involved to mediate disputes. Negotiations at the enterprise level always takes two forms: one is collective bargaining and the other is informal communication and consultation on issues concerning employment relations, sometimes including business operations and development. In China, the Labour Law facilitates the collective contract between employees and the employer over the terms and conditions related to wages, working time, rest and leave, safety and health at work, insurance and welfare, etc. Now, collective negotiation at the enterprise level has become very common, particularly in large and medium State-owned enterprises, where trade unions always engage in dialogue and consultation with enterprise management on issues concerning employees. In some economic development zones and science and technology parks, region-wide negotiation in enterprises has been practiced and has effectively protected the legitimate rights and interests of workers. But in some small and medium enterprises and private businesses, collective negotiation is less developed, labour rights are less protected and conflicts are more prevalent. The government and related

departments will work to promote collective negotiation within these enterprises.

4. OSH Technical Standards and Management Systems

4.1 Organizations for Standardization

The Standardization Administration of the People's Republic of China (SAC) is authorized by the State Council to formulate national standards and oversee and administer work to achieve this end. Relevant State Council industry departments and organizations are responsible for managing standardization work in relevant departments and industries. These departments and organizations will formulate the industry standards and conduct reporting activities to the SAC to record.

Administrative departments at provincial, autonomous region and municipal levels, directly under the control of the central government, are responsible for standardization work within their jurisdictions, formulating local standards, and reporting to the SAC and relevant competent industry departments under the State Council for the record.

The standard-setting department should establish a technical committee of experts for standardization with the task of drafting standards and participating in draft standard validation work. Currently, there are more than 300 national technical committees for standardization, more than 500 sub-committees and more than 100,000 practitioners.

The National Technical Committee of Work Safety Standardization is under the leadership of the State Administration of Work Safety. It has seven sub-committees that are responsible for coal mine safety, non-coal mine safety, chemicals safety, fireworks and firecracker safety, dust and explosion prevention, painting operations, and dust and toxicity prevention. There are a total of 193 members and 1 advisor in these committees.

4.2 The OSH Standard System

The OSH standard system refers to a combination of OSH technology, management, method and product standards, formulated for work safety. The OSH standard system of China consists of sub-systems for coal mines, non-coal mines, dust and explosion prevention, electricity, machinery, hazardous chemicals, petroleum chemicals, civil explosive products, fireworks, firecrackers, and personal protective equipment (PPE).

4.2.1 Coal Mine Safety and Health Standard System

The coal mine safety and health standard system consists of four components: general management, underground mining, opencast mining and occupational hazards.

(1) General Management

General management includes work safety laws, regulations, rules, guidelines and standards of State and coal mine administration authorities that prescribe mandatory coal mine safety techniques and management. The coal mine general management standards system has four parts: general requirements, geological exploration rules, mine design rules and mine production safety management, including general safety requirements for the whole process of coal mine exploration, design, construction, production, environmental protection and closure.

(2) Underground Mining

The underground mining standard system includes eleven fields: shaft construction safety, mining safety, gas prevention and control, dust prevention and control, mine ventilation, fire prevention, flood prevention, machinery safety, electrical safety, blasting safety and emergency rescue. Every sub-group can be divided into management, technical and product standards.

(3) Opencast Mining

Standards on opencast mining include three core components: opencast mining, side slope solidity, and opencast machinery and electrical equipment safety standards. Each sub-part can be divided into management, technical and product standards.

(4) Occupational Hazards

Standards on occupational hazards include three components: work environment safety standards, personal protection standards and occupational disease appraisal standards. Work environment safety standards include dust (general, total and respiratory), noise, vibration, radiation, high and low temperature, etc. The occupational hazard and health national standards include industrial enterprise work health design, physical labour intensity classification, workplace respiratory dust, exposure to occupational toxics and hazards grading standards, etc. The occupational hazard standards made by the coal industry include X-ray diagnosis for miner's pneumoconiosis, bursitis diagnosis, coal uranium content determination and personal protection standards, etc.

4.2.2 Non-Coal Mine Safety and Health Standard System

The non-coal mine safety and health standard system covers mines in the fields of oil and natural gas mining, metallurgy, non-ferrous, construction materials and chemicals with complex combination. It describes standards in terms of general, management, technical, method and product standards related to work safety in non-coal mines.

4.2.3 Hazardous Chemicals Safety and Health Standards System

The hazardous chemicals safety and health standards system includes general work safety standards, technical safety standards and management standards. General work safety standards include standards on hazardous chemical classification and

labeling, etc. Technical safety standards include standards on safety design and construction, safety distance in enterprises, production, transportation, storage and packaging safety, operation, check and repair, usage safety standards, etc. Safety management standards include standards on safety management in enterprises, emergency rescue plans, monitoring the safety of major hazard sources, occupational hazard prevention and the management of safety measures.

4.2.4 Fireworks and Firecracker Safety and Health Standard System

The fireworks and firecracker safety and health standard system includes general standards, management standards, raw and supplementary material standards, workplace standards, production technique standards, machinery and facility standards, etc. The general standards include safety rules of engineering design and work safety terms for fireworks and firecrackers; management standards include safety appraisal rules for enterprises, including on storage conditions and loading and unloading rules for fireworks and firecrackers; raw and supplementary material standards include safety in the monitoring of powder and the compatibility of different powders; workplace safety standards include a review of rules on firework and firecracker engineering design, and on workplace construction; production technique standards include safety rules for using powder in the production of fireworks and firecrackers; production machinery and facility standards include general technical rules for machines and facilities.

4.2.5 Personal Protective Equipment Safety and the Health Standard System

This system includes nine parts: head protection equipment, and equipment for hearing, eyes and face, respiration, clothes, hands, feet and skin protection, as well as equipment to protect against falls. Each part has general, technical, method, product and management standards, e.g. the management standards include provision,

selection, usage and maintenance codes.

4.3 Occupational Safety and Health Management System (OSHMS)

China has paid attention to international OSHMS development since 1996. In 1998 it studied relevant standards and conducted preparatory work for developing national standards. In October 1999, it promulgated Tentative Standards on OSHMS and developed some pilot schemes nationwide. In order to promote the steady development of OSHMS, in July 2000, China established the National Certification Guidance Committee, Approval Committee and Registration Committee of OSHMS to develop basic technical documents on approval, certification and registration of OSHMS. In December 2001, China issued Occupational Safety and Health Management System Standards (GB/T28001-2001), Occupational Safety and Health Management System Guiding Principles (State Guiding Principles), and Occupational Safety and Health Management System Examination Standards. In March 2002, it issued Occupational Safety and Health Management System Examination Standards-Implementation Guidance.

In May 2003, the State Administration of Work Safety (the State Administration of Coal Mine Safety) issued the ‘Notice on Further Strengthening Occupational Safety and Health Management System Work’, and made specific provisions on further strengthening the unified management of the OSHMS work and the National Occupational Safety and Health Management System Certification Steering Committee and its work. Under the leadership of the State Administration of Work Safety (the State Administration of Coal Mine Safety), the Certification Steering Committee issued unified management and guidance of national OSHMS work related to training, registration, counseling, accreditation and certification.

In September 2003, the State Council issued the ‘Regulations on Certification and Accreditation’. Since 2004, certification administration regarding OSHMS has

been transferred from the SAWS to the Certification and Accreditation Administration of the People's Republic of China (CNCA). The management systems certification is conducted based on Occupational Safety and Health Management System Standards (GB/T28001-2001).

By March 2011, there were 75 OSHMS certification agencies with 7,560 certified auditors, which issued 33,296 certificates.

4.4 The Application of ILO Codes of Practice on OSH

(1) The development and promotion of OSHMS in China is based on the ILO Guidelines on Occupational Safety and Health Management Systems (ILO-OSH 2001), which have played a positive role in the promotion of work safety in China.

(2) In 1997, China applied the ILO Code of Practice on the Prevention of Major Industrial Accidents (1991) and developed a pilot scheme for the General Survey and Control System of Major Hazards in six cities, including Beijing. This helped develop a national standard on major hazardous installations and improve major industrial accidents prevention and control skills.

(3) The ILO Code of Practice on Safety and Health in Coal Mines, the Code of Practice on Safety and Health in Opencast Mines, the Code of Practice on Safety and Health in Construction, the Code of Practice on Safety in the Use of Chemicals at Work, the Code of Practice on the Recording and Reporting of Occupational Accidents and Diseases, the Guidelines on Safety and Health in Ship-breaking, the Code of Practice on Safety and Health in the Iron and Steel Industry and other Codes of Practice have been translated into Chinese and published in China. These Codes of Practice have played an important role in guiding and drafting the relevant rules and regulations in China.

5. OSH System Operation Measures

5.1 National OSH Supervision and Inspection

5.1.1 Supervision and Inspection

In the Eleventh Five-Year Plan period, the state strengthened occupational safety and health supervision and inspection, cracked down on illegal production and business operations to improve occupational safety and health conditions, and carried out the following work:

(1) On-site supervision and inspection

During 2006-2010, OSH supervision departments and coal mine safety inspection agencies at different levels carried out 17.617 million on-site supervision and inspection tours in 8.394 million production and business entities, including 6.033 million in the 2.247 million production and business high-risk industry entities.

(2) Safety Hazard Identification and Control

During 2006-2010, safety supervision departments and coal mine safety inspection agencies at different levels checked and dealt with 12.774 million hazards and 0.116 million major hazards in production and business entities. Rectification rates stand at 96.1% and 90.8% respectively, including 6.274 million hazards and 87100 major hazards in high-risk industries (field), with rectification rates of 95.6% and 94.9% respectively.

(3) Management of occupational hazards

In 2010, the State Commission Office for Public Sector Reform issued the 'Notice on the Assignment of Responsibilities in Occupational Health Supervision Departments', which defined Prevention, Treatment and Security (i.e. prevention, diagnosis and treatment of occupational diseases and social security for patients with occupational diseases) as the guiding principle of occupational health inspection work, supervised by work safety departments, health departments, human resources and social security departments respectively; reasonably adjusted the responsibilities of

the relevant departments, and also defined the rights of trade unions concerning participation in occupational health supervision.

SAWS is responsible for the following occupational health supervision work: conducting special measures to control dust and highly toxic substances hazards; promoting the establishment of occupational health supervision teams in the occupational health and safety supervision system and occupational health administrator teams in enterprises; implementing occupational hazard reporting and filing systems, inspection, monitoring and warning systems; structuring the occupational health supervision system, technical standard system, technical support system and information management systems; strengthening education and public awareness of occupational health, the registration of occupational hazards, the administrative licensing of occupational health, supervision and inspection of workplaces and investigation of occupational hazards and accidents. These all have powerfully promoted the development of occupational health supervision work.

From August 2009 to the end of 2010, under the auspices of the State Administration of Work Safety, the Ministry of Health, the Ministry of Human Resources and Social Security, and the All-China Federation of Trade Unions have jointly organized special action to control dust and highly toxic substance hazards in workplaces and to cope with occupational hazards in key industries, such as mining and quartz sand processing. During this special action, a total of 166,479 enterprises went through self-examination and self-reformation, and 588,977 hazards were identified. Of these, 521,182 have been rectified. Work safety departments at all levels inspected 152,013 firms, and found 442,339 hazards of which 313,002 were ordered to be corrected on the spot, with 106,857 corrected in the allotted timeframe. A total of 2,714 firms were ordered to suspend production in order to address issues, and 341 firms were closed down.

In 2010, SAWS also highlighted occupational hazards management in key industries, organized assessment investigation and research in the workplaces, and carried out occupational hazards monitoring work in quartz sand processing enterprises, wood furniture manufacturers, asbestos mining and the asbestos products

business. According to investigations and research, it analyzed and summarized the occupational health status, characteristics and existing problems in quartz sand processing enterprises. Based on this, it proposed measures for strengthening and regulating dust prevention in quartz sand processing enterprises.

(4) Supervision and monitoring at major hazard installations

During the 2006-2010 period, local safety supervision departments at all levels and resident coal mine safety supervision agencies cumulatively registered a total of 299,000 major hazard installations. A total of 279,000 major hazard installations had taken safety supervision and monitoring measures; at the time of reporting, the cumulative monitoring rate was 92%.

(5) Investigation and handling of accidents

The investigation and handling of accidents have been strengthened. The SAWS has issued the 'Measures on Supervising the Handling of Major Accidents', the main contents of which include investigating responsibility for accidents and releasing related information on the handling of accidents through central mainstream media and on central government websites.

5.1.2 Supervision and Inspection Team

In accordance with the Law on Work Safety, governments at various levels have strengthened the establishment of work safety administration bodies. In addition to the establishment of a centralized vertical administration in coal mine safety inspection, by 2010, the State achieved full coverage of provincial and municipal level safety administration bodies and 96.6% of counties (2,760) had established specialized work safety administration bodies. By the end of 2010, the designated number of staff in three-level safety administration bodies was 48,338, and the actual number was 54,124.

All over the country 20 provinces (autonomous regions and municipalities directly under the control of the central government), 275 prefectures (82.6%), and 2,056 counties (71.9%) have set up work safety inspectorates. There were 2,351 inspectorates at the three abovementioned levels with a total designated number of

20,969 inspectors (the actual number was 19,847). In addition, there were 57,577 full-time staff, 46,318 part-time staff and 8,242 staff working in 40,858 towns (streets) work safety offices and law enforcement teams for a total of 112,137 staff.

In key coal-producing regions, five new provincial coal mine safety inspectorates and seven regional coal mine safety inspectorates have been established and therefore by the end of 2010 the country had a total of 25 provincial coal mine safety inspectorates and 78 regional coal mine safety inspectorates with a total number of 2,762 inspectors.

The network and system of other sectoral work safety inspectorates are continuously improving and the number of inspectors is growing further in key industries such as construction, special equipment, fire protection, road traffic, water transport, railway transportation, civil aviation, agricultural machinery, fishery and watercraft.

5.1.3 Infrastructure and Enforcement Equipment

During the Eleventh Five-Year Plan period, the State strengthened safety administration bodies and coal mine safety inspectorates relating to the infrastructure and equipment construction at all levels, and gradually improved law enforcement infrastructure. 292, 1316 and 4655 law enforcement vehicles (1 car / 7 people, 1 car / 6 people and 1 car / 8 people) have been equipped at the provincial, city and county levels respectively. The number of equipments to be used for the inspection of coal mines, non-coal mines, hazardous chemicals, fireworks and occupational hazards monitoring have been provided.

5.2 OSH Science and Technology Research

5.2.1 China Academy of Safety Science and Technology

China Academy of Safety Science and Technology (hereinafter referred to as CASST) is a subordinate institution of the SAWS and a national research institution on work safety science. Major research directions of the academy relate to solving

major issues in terms of accident prevention, monitoring, early warning, emergency rescue and other key technological issues. The CASST is also responsible for undertaking important scientific research and technical services closely related to the administration work assigned to it by the State; establishing and perfecting transformation mechanisms for scientific and technical achievements, integrating excellent scientific and technical achievements, and promoting safety science and technology. At the same time, it provides technical support for the SAWS to make informed policies and decisions.

Scientific research departments under the CASST mainly consist of the following: the Institute of Work Safety Theory, Laws, Regulations and Standards; the Institute of Public Safety; the Institute of Industrial Safety; the Institute of Mining Safety; the Institute of Traffic Safety; the Institute of Occupational Hazards; the Institute of Hazardous Chemical Safety; the Institute of Safety Management Technology; and the Technical Centre of Major Hazard Installation Monitoring, Accident Investigation and Appraisal.

The CASST has more than 270 staff, including 57 PhDs (including 7 postdocs), 95 professors and associate professors, and 11 specialists who are entitled to the State Council special allowances.

In 2008, the CASST established the Postdoctoral Scientific Research Station approved by Postdoctoral Regulatory Commission of the Ministry of Human Resources and Social Security.

During the Eleventh Five-Year Plan period, the CASST has carried out more than 330 scientific research projects, of which more than 30 were national key projects, more than 30 were granted provincial and ministerial level, scientific awards, more than 50 were awarded patents and software copyright, and more than 40 were projects establishing scientific and research technology standards.

5.2.2 China Coal Research Institute

The China Coal Research Institute (CCRI) was set up in 1957. In 1999, it was restructured to be a scientific and technological enterprise under the leadership of the

central government as the only comprehensive research institute and technological innovation base in the coal industry of China. Its headquarters are in Beijing.

The CCRI is mainly engaged in coal transformation, processing and utilizing technology, environmental protection and energy saving technology, coal mine safety technology and equipment, mine automation and information technology, as well as scientific and technological information and economic research, safety test for products used in coal mines and safety warning sign management, etc.

The subordinate bodies of the CCRI consist of six branches, including the Research Testing Branch, Mining Safety Technology Research Branch, Safety Equipment Research Branch as well as three other branches and the Mining Products Safety Approval and Certification Center.

5.2.3 Local OSH Research Institutes

As China's work safety administration system has changed, the original labour protection (work safety) scientific research institutions under local labour departments have been transferred to local work safety administrations. Now there are 19 local Work Safety Research Institutions in China.

Beijing Municipal Research Institute of Labour Protection was established in 1955 as the first comprehensive occupational safety and health institute in China. It was formerly directly under the Ministry of Labour, and was devolved to Beijing Municipality in 1970. This Institute is a strong local work safety research institution and has established a number of professional technical research institutions and testing centers in three key areas of urban public safety, work safety and the living environment, which have laid a solid foundation for basic, applicative, proactive research. Over the past decade, the Institute has set up several key laboratories such as the Beijing Municipal Poisonous, Harmful, Inflammable and Explosive Hazards Control Technology Research Center, the Beijing Municipal Dangerous Chemicals Emergency Technology Center, the Beijing Municipal Environmental Noise and the Vibration Control Technology Center and the Beijing Municipal Indoor Environmental Quality Testing Center. It has also focused activities on the following

research: an evaluation of poisonous, harmful, inflammable and explosive hazards in urban environments, monitoring technology, prevention and control technology and emergency protection technology, major hazard control technology, hazard identification, quantitative and semi-quantitative safety evaluation technology, public hazards identification and crowd evacuation simulation on computer technology, accident emergency rescue technology research and development of products, occupational exposure assessment technical research in dangerous work places and environments, etc.

5.2.4 Key State Laboratories

The SAWS has designated four national professional centers and 31 laboratories in the areas of coal mines, non-coal mines, occupational hazards and basic research, as well as three provincial professional centers and 94 laboratories in the same areas, equipped with 5,511 items of equipment, having initially established national and provincial work safety professional technical support centers. Focusing on the areas of coal mines, non-coal mines and hazardous chemicals, key laboratories at the national, provincial and ministerial level, focusing on work safety, have been identified, establishing a more extensive platform for work safety technology research and development (see table 5-1). A new safety research center, laboratory and traffic accident appraisal institute, affiliated with the Ministry of Public Security is currently under construction, and has been identified as a priority. The equipment and resources for a fire protection research institution have been increased, so that the capacity of fire science and technology innovation can progress. A laboratory of civil aviation safety technology analysis and identification has been completed and many items of equipment for civil aviation accident investigation and identification have been upgraded. A research and key special equipment test base of China Special Equipment Inspection and Research Institute are currently under construction.

Table 5-1 National and Provincial Key Work Safety Laboratories

No.	Laboratory Name	Supporting Institution	Responsible Authority
1	Laboratory of basic research on coal mine gas and water hazards prevention	North China Institute of Science and Technology	SAWS
2	Laboratory of coal mine safety ergonomics	North China Institute of Science and Technology	SAWS
3	Key laboratory of coal mine gas geology and gas hazard prevention	Henan University of Technology	Henan province
4	Laboratory of coal mine safety foundation research	Fushun Research Branch of China Coal Research Institute	SASAC
5	Laboratory of hazardous chemical safety control	Safety Engineering Research Institute of Sinopec	SASAC
6	State key laboratory of fire science	University of Science and Technology of China	MOE
7	Laboratory of explosion hazard prevention and control	Beijing Institute of Technology	MIIT
8	Laboratory of construction safety and environment	China Academy of Building Research	MHURD

5.2.5 Investment in Safety Science and Technology Research

During the Eleventh Five-Year Plan period, the number of national science and technology support projects organized by SAWS increased from 2 projects with 11 subjects to 11 projects with 61 subjects. Funding allocations from the State increased from 57 million yuan to 264 million yuan (see table 5-2), promoting research into key technology for work safety and developments in the field of coal mines, dangerous chemicals, transportation and other sectors (areas) with more than 100 technological achievements. Liaoning Fushun mine district, Hebei Fengfeng mine district, Petroleum, Panda Fireworks, Three Gorges Project Corporation and other enterprises were chosen to establish more than 60 scientific and technological innovation and demonstration projects, such as dynamic monitoring and major hazards warning, etc. Meanwhile, the SAWS invested 86 million yuan to continuously carry out more than 20 basic research projects on work safety. During the five year period, 2012 projects were listed in SAWS Annual Safety Technology Development Plan, which guides enterprises and research institutions to carry out independent safety research and development through one billion yuan in self-provided funds.

Table 5-2 Investment in Key Industries (Areas) Safety Science and Technology Research during the Eleventh Five-Year Plan Period

No.	Key industries (areas)	Number of projects	Number of subjects	Total funds (ten thousand yuan)	State allocated funds (ten thousand yuan)
1	Coal Mines	3	22	18,786	9,400
2	Non-coal mines	2	10	10,055	5,165
3	Hazardous chemicals	1	3	2,060	1,560
4	Fireworks and firecrackers	1	5	4,625	1,625
5	Occupational hazards	1	4	1,660	1,415
6	Emergency Accidents	2	7	5,716	2,816

	rescue				
7	Inspection and testing	1	5	3,205	2,305
8	Other	0	5	3,243	2,168
Total		11	61	49,350	26,454

5.3 Non-Governmental OSH Bodies

5.3.1 China Association of Work Safety

China Association of Work Safety (CAWS) was set up in 2008. It is a national non-profit social corporate body. Its membership consists of enterprises, public institutions, research institutions and universities, as well as other experts and research fellows related to work safety.

Its major functions are: to organize research relating to work safety and make suggestions and recommendations for formulating national laws and regulations, policies and guidelines, development plans and major decisions on work safety; to collect, analyze and exchange work safety information, edit and publish a journal, organize work safety self-regulatory activities; to organize research on the identification, assessment, display and promotion of new work safety technologies, products and results; to promote work safety technology innovation and advancement, following the strategy of promoting safety through technology; to implement the work safety guiding principle of Safety First, Prevention Foremost and Comprehensive Governance, and summarize, exchange and spread advanced practices of work safety management, organize work safety standardization, improve safety management in enterprises; to develop education and training programs on work safety to enhance public awareness and capability on safety; to undertake preliminary tasks for the certification of safety appraisal and training; to conduct public welfare and consulting activities on work safety; to develop international cooperation and exchanges on work safety; to provide membership services and transmit members' suggestions and requests, and protect the legitimate rights and interests of work safety staff; to undertake other tasks authorized by the government and relevant units.

5.3.2 China Occupational Safety and Health Association

The China Occupational Safety and Health Association (COSHA), founded in 1983, was formerly known as the Chinese Society for the Science & Technology of Labour Protection (CSSTLP). It is a nationwide, nongovernmental, public-spirited, professional organization established on a voluntary basis by OSH practitioners and entities. The COSHA is a group member of the China Science & Technology Association and also a member of the Asia Pacific Occupational Safety & Health Organization (APOSHO).

The highest body of the COSHA is the National Congress of Members. It has a board of directors that is an executive body of the COSHA with five years for each term. The Secretariat is the standing body of the COSHA.

The COSHA is well supported by the State Administration of Work Safety (SAWS), and the COSHA secretariat is in the same building as the SAWS.

The mission of the COSHA is to promote OSH progress. The role COSHA plays is that of a bridge between occupational safety and health workers, enterprises, nonprofit organizations and governments. The major functions are as follows:

(1) To contribute suggestions and consultations for strategy formulation, legislation and major decision-making on national occupational safety and health as well as related science and technology.

(2) To assist the government in formulating national OSH policy and plans, promote new achievements, technologies and products on OSH, and stimulate the development of safety protection, safety engineering and inspection technology industries.

(3) To conduct investigations and research with a focus on major OSH issues, and provide OSH consulting services to industries and enterprises.

(4) To conduct international exchanges and cooperation on OSH science and technology, compile, publish and distribute OSH publications, and edit the China Safety Science Journal.

(5) To promote OSH education and training, popularize related science and

technology, organize continuing education for OSH practitioners, and promote the safe community programme to improve the national safety culture.

(6) To organize theoretical and practical research on occupational safety and health, provide OSH technology services and conduct OSH science and technology consultation and development activities.

(7) To undertake the following activities as entrusted and approved by government agencies:

- To organize and conduct OSH risk assessments.
- To organize the examination and appraisal of OSH science and technology projects, and judge candidates for the OSH science and technology awards.
- To undertake examinations and appraisals of OSH professional qualifications.
- To undertake work relevant to the secretariat of the Steering Committee on Safety Engineering Teaching for Institutions of Higher Learning.
- To organize and participate in the drafting, demonstration, review and publicizing of OSH Technical Standards.

(8) To conduct public services for OSH practitioners and relevant units, promote self-regulation and occupational ethnics enhancement programs, safeguard the legal rights and interests of OSH practitioners and conduct technology arbitration as entrusted by relevant entities.

(9) To undertake other work as entrusted by government agencies or relevant entities.

In the COSHA, there are 17 professional committees such as the management science committee, 8 sub-committees such as the safety in geological prospecting sub-committee, 9 working committees, such as the science and technology working committee, and 6 representative offices located in Jilin and other provinces

In recent years, the COSHA has conducted work focusing on national occupational safety and health. It has accomplished a lot of work as entrusted to it and authorized by SAWS, such as investigation and research into pneumoconiosis, the relevant work of the Steering Committee on Safety Engineering Teaching for

Institutions of Higher Learning, technical services for qualification examination and appraisal of OSH professionals, drafting safety science and technology plans, and reviewing and appraising OSH science and technology achievements, service and management for work safety experts group, secretariat work of the sub-committees on dustproofing and anti-poison action, safety approval of coal mine construction projects, and occupational safety and health as well as the safe community construction.

5.3.3 China Chemicals Safety Association

The China Chemicals Safety Association (CCSA) was founded in 2005. It was formerly known as the China Chemical Safety and Health Association, founded in 1993. Now the CCSA is under the leadership of SAWS and its secretariat is in the same building as the SAWS.

Its major functions are: to publicize and implement national laws and regulations on work safety, and coordinate chemical safety management with the government; draft and revise chemicals safety regulations, rules and technical standards as authorized by the government, and organize implementation; organize the exchange of work safety practices, conduct inspections on work safety, spread new achievements, new technology and new materials on chemicals safety, and promote work safety technological progress; reflect the opinions and demands of its members, safeguard their rights and interests; develop consulting services on safety management and technology; organize the compilation and production of training textbooks, audio and video documents, develop activities of education, training, seminars and forums; conduct investigations and studies, and provide suggestions and recommendations on chemical safety to the administrative authority of government; develop exchange and cooperation at home and abroad; undertake tasks entrusted by government authorities and member agencies.

5.3.4 Local Work Safety Associations

Some provinces and cities in China have established their own work safety

associations or occupational safety and health associations, composed on a voluntary basis of local enterprises and institutions, work safety management personnel, safety research staff and work safety workers as a non-profit organization under the leadership of local administration work safety authorities. e.g. Beijing Municipal Work Safety Association, Shanghai Municipal Occupational Safety and Health Association, Tianjin Municipal Work Safety Management Association, Chongqing Municipal Certified Safety Engineers Association, Jilin Provincial Work Safety Engineering Association, Shaanxi Provincial Work Safety Association, Hainan Provincial Work Safety Association, Fujian Provincial Work Safety Management Association, Shandong Provincial Work Safety Management Association, Jiangsu Provincial Work Safety Management Association, Sichuan Provincial Occupational Safety and Health Association, Henan Provincial Occupational Safety and Health Association, Chengdu Provincial Occupational Safety and Health Association, Zhejiang Provincial Work Safety Association, etc.

5.4 Occupational Safety and Health Information

5.4.1 Websites of OSH- Related Agencies

- ◆ Ministry of Human Resources and Social Security
www.mohrss.gov.cn/
- ◆ Ministry of Health
www.moh.gov.cn
- ◆ Department of Special Equipment Safety Supervision of the General State Administration of Quality Supervision, Inspection and Quarantine
<http://tzsbaqjcj.aqsiq.gov.cn/>
- ◆ State Administration of Work Safety
www.chinasafety.gov.cn

- ◆ State Administration of Coal Mine Safety
www.chinasafety.gov.cn/newpage/mkaj/index.htm

- ◆ National Workplace Emergency Rescue Management Center
www.emc.gov.cn/emc/

- ◆ China Academy of Safety Science and Technology
<http://www.chinasafety.ac.cn>

- ◆ Chemical Registration Center of the State Administration of Work Safety
<http://en.nrcc.com.cn/>

- ◆ Mine Medical Care Center of the State Administration of Work Safety
www.mtzyy.com.cn/

- ◆ Chinese Center for Disease Control and Prevention
<http://www.chinacdc.cn/en/>

- ◆ Secretariat of the National Safety Standardization Technical Committee
www.chinasafety.ac.cn

- ◆ Institute for Occupational Safety and Health (Coal industry professional medical research institute) of SAWS
www.iosh.org.cn/

- ◆ The Training Center of China Safe Mine Technology
<http://pxc.ncist.edu.cn/>

- ◆ The National Work Safety Testing Technology Center
www.chinasafety.ac.cn

- ◆ LA Mark Center of Personal Protective Equipment

<http://www.chinasafety.ac.cn>

◆ Mining Products Safety Approval and Certification Center

<http://www.aqbz.org>

◆ China Association of Work Safety

<http://www.china-safety.org.cn>

◆ China Occupational Safety and Health Association

<http://www.cosha.org.cn>

◆ China Chemical Safety Association

www.chemicalsafety.org.cn/

◆ China Coal Miner Pneumoconiosis Prevention and Treatment Foundation

www.cfbjjh.org.cn/

◆ National Bureau of Statistics of China

<http://www.stats.gov.cn/english/>

5.4.2 ILO-CIS National Centre for China

The ILO-CIS National Centre for China is under the leadership of the CASST. The CASST has been a member of ILO-CIS since 1987. The centre is responsible for occupational safety and health information work; collecting information on occupational safety and health with the ILO-CIS on behalf of China; organizing information cooperation and exchange in the occupational safety and health field between domestic and foreign stakeholders; translating and publishing authorized ILO publications, including Codes of Practice, training materials and the Report of the World Day for Safety and Health at Work; participating in ILO cooperation projects and related activities. At the same time, through the collection, processing, dissemination and study of occupational safety and health information at home and abroad, the Centre provides consulting services for government departments drafting

related OSH laws, regulations and policies.

In recent years, ILO-CIS National Centre for China undertook research projects, such as a ‘Comparative Study between ILO OSH Conventions and China's Current Safety Laws and Regulations on OSH’, ‘Feasibility Analysis on the Ratification of ILO No.155 Convention’; compiled the National Emergency Popular Science Series commissioned by the Ministry of Science and Technology; compiled and published ‘ILO and China’s OSH, 60 Years of Chinese Work Safety’ and other books, and developed close to 20 different kinds of training materials for OSH; organized and compiled the National Work Safety Yearbook (one for each year); organized the translation and publication of more than 20 ILO Codes of Practice, training materials, reports and information on OSH.

In 2010, the ILO-CIS National Centre for China organized the 48th Annual Meeting of CIS National, Collaborating and Regional Centres in Beijing, and established friendly connections with other ILO-CIS National, Collaborating and Regional Centers all over the world.

5.4.3 OSH-Related Newspapers and Journals

China Coal News

<http://www.ccoalnews.com>

China Metallurgical News

<http://www.csteelnews.com>

China Work Safety News

<http://www.aqsc.cn>

Chemical Safety and Environment (Weekly)

<http://www.chemsafety.com.cn>

China OSH (Monthly)

<http://chinaosh.com.cn/index.asp>

China Personal Protective Equipment (Bimonthly)

<http://www.xtd-gmw.cn/yisheng/html/?737.html>

China Safety Science Journal (Monthly)

<http://www.cosha.org.cn/103384/103471/list.html>

China Special Equipment Safety (Monthly)

<http://www.csei.org.cn/IRC/zazhi/index.asp>

China Standardization (Monthly)

<http://zgbzh.cspress.com.cn/zgbzh/ch/index.aspx>

Chinese Workers' Movement (Monthly)

<http://english.acftu.org/template/10002/column.jsp?cid=149>

Chinese Workers (Monthly)

<http://www.chineseworkers.com.cn/>

Construction Safety (Monthly)

<http://www.jzaqzz.com/>

Journal of Safety Science and Technology (Bimonthly)

<http://www.chinasafety.ac.cn/journal/index.aspx>

Labour Protection (Monthly)

http://www.esafety.cn/Category_5357/Index.aspx

Modern Occupational Safety (Monthly)

http://www.esafety.cn/Category_5530/Index.aspx

Safety (Monthly)

<http://www.bmilp.com>

5.5 Occupational Safety and Health Services

5.5.1 OSH Testing Institutions

According to the Law on Work Safety and other laws and regulations, the SAWS adopted the Rules on the Management of Work Safety Inspection and Testing Institutions in January 2007, which stipulate that testing institutions shall obtain a qualification certification and carry out their activities based on the certified validity and business scope.

The qualifications are classified into A level and B level. The institutions certified as ‘A level’ can engage in testing of work safety facilities (except special equipment), equipment, product models, safety labels, operations, supervision, workplace safety and the analysis of the physical evidence of accidents in factories, mines, commercial and trade enterprises across the country. The bodies certified as ‘B level’ can engage in the testing of work safety facilities (except special equipment), equipment, operations, supervision, workplace safety and the analysis of the physical evidence of less serious accidents in locally-run factories, mines, commercial and trade enterprises within the provinces, autonomous regions and municipalities. By the end of 2010, there were 44 A level and 135 B level OSH testing institutions nationwide.

The National Work Safety Testing Technology Centre has an A-level occupational health technical qualification and work safety inspection and testing qualification. It is the national inspection and testing institution for the safety labeling of special and imported labour protection equipment. It is also one of the service providers designated by the SAWS to conduct technical reviews and expert appraisal for the award of work safety inspection and testing qualification and certification.

The Centre has many professional testing laboratories installed with more than

1,000 pieces of advanced testing equipment worth over 50 million yuan. Its scope of activities includes labour protection equipment testing, testing and appraisal of occupational disease hazards and causes, indoor environmental hazard testing, construction material hazard testing, occupational disease hazard assessment and safety evaluation in construction projects.

5.5.2 Safety Assessment Institutions

According to the relevant provisions of the Law on Work Safety, the SAWS exercises unified management over assessing the safety qualifications of an institution as 'A' or 'B'. The SAWS is responsible for the review, approval and award of A-level qualifications, and provincial (coal mine) work safety administration authorities are responsible for B-level qualifications, reporting to the SAWS for record. The SAWS has approved 176 A-level safety assessment institutions and 580 B-level safety assessment institutions have been approved by provincial authorities, as reported to the SAWS for record by June 2011. The number of work safety assessment staff is 18,000 nationwide.

5.5.3 Product Safety Mark Management Institutions

(1) Safety Mark Center for Personal Protective Equipment

The Center was established in 2005. This personal protective equipment quality inspection institution was authorized by the SAWS. Its main functions include: responsibility for accepting, issuing and the daily management of the safety mark of special labour protection equipment nationwide; drafting and formulating rules, regulations and verifying procedures on safety mark management of special labour protection equipment; responsibility for authorizing the use of an electronic identification safety mark for special labour protection equipment; organizing scientific research on labour protection equipment and transformational work of new products and new technologies.

The Center consists of the integrated management department, technical verification department, on-site assessment department, and certification department.

(2) Mining Products Safety Approval and Certification Center (MA Center)

The Mining Products Safety Approval and Certification Center (MA Center) has been authorized by the State Administration of Work Safety (SAWS), to approve and certify the safety of certain mining products. The mission of the MA Center includes: to accept applications for safety marks; to organize to carry out the technical check, on-site assessment, product sampling inspection; to issue the safety mark as well as to supervise enterprises holding safety marks. The MA Center has 7 departments, including the General Office (Policy Research Office), Comprehensive Research Department (International Department, Information Section), Technical Support Department, Evaluation and Auditing Department, Testing / Inspection Department, Finance Department.

5.6 Work Injury Insurance and Compensation

5.6.1 Work Injury Insurance System

China's work injury insurance system was established in the early 1950s. Keeping pace with China's economic and social development, the work injury insurance system has undergone a process of development, reform and gradual improvement.

In February 1951, the Central People's Government formulated the Regulations on Labour Insurance, which listed work injury insurance as first amongst various types of insurance. Work injury insurance compensation includes three types of compensation: medical and rehabilitation, disability and death. To pay compensation, the work injury insurance fund and the employer shall, in principle, share payment, as defined in the regulations.

On April 16, 2003, the State Council issued the 'Regulations on Work Injury Insurance' and a series of policy measures to promote the development of work injury insurance. This was based on the many years of experience and piloting conducted in China since the reform and opening, and lessons learned from foreign experiences.

On December 2010 the State Council made significant changes to the

Regulations on Work Injury Insurance. The first major change was expanding the scope of application of work injury; the second being the simplification of work injury appraisal and dispute processing procedures; the third being the improvement of treatment standards for workplace injury; and finally, the fourth being reducing the amount of treatment medicines and related items employing units pay for and increasing the amount paid by the work injury insurance fund.

5.6.2 Working Ability Appraisal

Upon completion of work injury medical treatment, the worker's units shall apply for an appraisal and send related materials concerning work injuries or occupational diseases certification and treatment to the office of the local labour appraisal committee.

After receiving an application for appraisal, the office of the labour appraisal committee shall examine the validity of related evidence and material on the basis of work injury insurance policy and criteria for disability assessment. At the same time, a specialist group shall be invited to appraise the grade of disability and grade of attendance and come to a conclusion. The office of the labour appraisal committee shall inform the unit and the worker in question concerning their conclusions.

An appraisal conclusion can be changed following regular re-examinations.

Appraisal agency: The Labour appraisal committee at the provincial, prefecture (city) and county (county-level city) levels consists of leaders in charge of the labour department, public health department and trade unions. An office is set up under the committee for routine work.

5.6.3 Payment of Work Injury Insurance Benefits

Benefit items include: medical treatment benefits for work injury, work injury allowance, disability benefit, nursing benefits, benefit for disability auxiliary appliances, subsidies for settlement away from the work place, one-time labour disability grant-in-aid, funeral allowance, benefit for supporting relatives, one-time workplace death grant-in-aid.

5.6.4 Development of Work Injury Insurance

Since January 1, 2004, the Regulations on Work Injury Insurance have played a positive role in safeguarding the lawful rights and interests of workers injured in the workplace, diminishing risks to employing units, and standardizing and promoting work injury insurance. The number of people participating in work injury insurance has been increasing steadily, from 45.75 million before the Regulations were implemented, to 158 million in September 2010, including 61.31 million migrant workers

For their implementation in 2004 to the end of 2009, 4.2 million people had qualified work injuries, 10.8 million people received work injury medical treatment benefits and 4.34 million people received benefits for supporting relatives and lump sum allowances for the deceased.

5.6.5 Occupational Accidents Statistics and Reporting System

For a timely, accurate, and comprehensive assessment of information on occupational accidents nationwide, the SAWS issued the new ‘Occupational Accidents Statistics and Reporting System’ in 2010. This has been approved by the National Bureau of Statistics.

(1) Scope of the Statistics

Statistics cover all work-related accidents that cause personal injury or direct economic loss, occurring in entities that engage in production and business operation activities within the territory of the People’s Republic of China.

(2) Contents of the Statistics

Occupational accident statistics include general descriptions of working units where accidents happen, the number of accidents, numbers of fatalities and injuries, the number poisoned through industrial activities, the economic type of the working unit, the type of accidents, causes, direct economic losses, etc.

(3) Organization and Management

Work safety administration and coal mine safety inspection agencies at all levels

shall be responsible for organizing and implementing the statistical reporting of occupational accidents, collecting statistics on accidents occurring in their administrative jurisdiction on a monthly basis. Accident statistics on fire, road transportation, water transportation, railway transportation, civil aviation, and agricultural machinery, fishing and shipping shall be managed by the competent authorities and reported monthly to the work safety administration authorities at the same level.

5.7 The National Chemical Safety Management System

5.7.1 OSH issues Related to Chemicals

China currently produces over 45,000 kinds of chemicals. By the end of 2010, there were 22,000 hazardous chemicals manufacturers and 263,000 business enterprises throughout the country.

As the number of chemical companies increases, the numbers of operators are also increasing. These enterprises consist not only of large-scale enterprises owning advanced production systems but also small enterprises continuing to use old equipment and outdated technologies. Furthermore, the quality of the operators is not consistent. Therefore, the main problems currently faced are to phase out outdated technologies and equipment, improve working environments and conditions, conduct education and training activities related to OSH, strengthen supervision and management, and eliminate or reduce occupational accidents and hazards.

5.7.2 National Chemical Safety Policies

Four regulations have been consecutively issued following the ratification of the ILO Chemicals Convention (No.170) in China. These include the ‘Regulations on the Management of Hazardous Chemicals’, the ‘Regulations on the Management of Toxic Chemicals’, the ‘Regulations on Management of Controlled Chemicals’ and the ‘Regulations on the Management of Pesticides’. In addition, there are more than 200 national and industrial standards concerning the management of chemical safety,

including the ‘Major Hazard Identification of Hazardous Chemicals (GB18218-2009)’ and ‘the General Norm for the Safety Standardization of Hazardous Chemicals Enterprises (AQ3013-2008)’. Measures on the Safety License Management of Hazardous Chemicals Construction Projects and other measures were also issued. Economic policies concerning risk deposit are implemented by high-risk chemicals production industries.

In order to strengthen leadership on hazardous chemicals work safety and the coordination and cooperation among sectors, and to improve efficient safety management, an inter-ministerial joint conference system on hazardous chemicals work safety management was established with the approval of the State Council. Headed by the SAWS, the joint conference consists of 16 ministries and commissions. They are as follows: the SAWS, the Development and Reform Commission, the Ministry of Public Security, the Ministry of Supervision, the Ministry of Human Resources and Social Security, the Ministry of Construction, the Ministry of Railways, the Ministry of Health, the State-owned Assets Supervision and Administration Commission, the State Bureau of Industry and Commerce, the General Administration of Quality Supervision, Inspection and Quarantine, the Ministry of Environmental Protection, the Civil Aviation Administration, the Legal Affairs Office of the State Council, and the ACFTU. The responsibilities of each member unit are to study problems related to the management of hazardous chemicals according to their respective functions and duties, put forward subjects for meetings in time to lead units and actively participate in joint meetings; to implement tasks on agreed upon issues, confirmed in joint meetings, and to timely handle related problems on sectoral coordination during the supervision of hazardous chemicals management. Each member unit shall share information, cooperate and support each other in order to create synergy and fully contribute to the joint conference.

During the Eleventh Five-Year Plan period, nearly 60% of cities (prefectures) formulated plans for the development of a safe chemical industry. The work of moving chemical enterprises, which do not have an adequate perimeter area for security and safety, made significant new progress, with 60% of these chemical

enterprises having completed their relocation, by the end of 2010. The special rectification campaigns in hazardous chemicals production units are also expanding and becoming more comprehensive; the industrialization of hazardous chemical processing reconstruction work is being carried out; safety monitoring devices for hazardous chemicals road transport vehicles are being widely utilized; and surveillance systems for hazardous chemicals road transport in Jiangsu Province, Zhejiang Province and Shanghai Municipality has been recently established.

5.7.3 Chemical Safety Supervision and Management Body

At present, there is a specialized administrative body responsible for the management of chemical safety within the SAWS (namely the 3rd Department of Safety Supervision described earlier). Its major functions are as follows: to supervise work safety situation in chemical (including petrochemicals), pharmaceutical, and hazardous chemical production and operation enterprises in accordance with the law, take charge of the management of work safety permits in dangerous chemicals production, organize the inspection and penalization of business operation entities which do not qualify as providing safe work conditions; to undertake comprehensive supervision and management activities related to hazardous chemical safety; to organize and guide the compilation of a hazardous chemicals directory and register of domestic hazardous chemicals; to guide the supervision and management of non-pharmaceutical precursor chemical production and business operations; to examine and approve designs for safety facilities in major construction projects; to guide and supervise safety standardization work; and to join departments and agencies concerned in the investigation and handling of major accidents and the emergency rescue operations for major accidents.

5.7.4 National Registration Center for Chemicals, SAWS

The National Registration Center for Chemicals was established in 1997, and is now directly under the SAWS as a comprehensive technical support agency for the supervision of hazardous chemicals safety in China.

The Center is responsible for organizing, coordinating and guiding the registration of hazardous chemicals, setting up and maintaining a basic database of national hazardous chemicals, formulating and adjusting the directory of national hazardous chemicals, studying and drafting regulations and technical standards and policies on the supervision of hazardous chemicals, providing effective information and technical support for the supervision of hazardous chemicals, prevention of chemical accidents and emergency rescue during chemical accidents.

5.8 OSH Education and Training

5.8.1 University and College Education Related to Safety Engineering

Following the establishment of the University Safety Engineering Discipline Education Committee, safety science and engineering was declared as a first-class discipline over the 2006 to 2010 period. At present, there are 127 universities and colleges nationwide which have established a discipline on safety engineering (of which 46 have the authority to award masters' degrees and 20 have the authority to award doctoral degrees). More than 30,000 students currently attend these courses. These universities enroll about 280 doctoral students and 1,000 masters' degree students every year. The education and training for coal mine professional talents have particularly increased. Currently, 23 vocational colleges are listed as training bases to address shortages in technically talented persons in the coal industry, and 30 specialized education sites for coal mine and safety engineering have been established in related universities and colleges. There are about 109,000 professional students in coal mine disciplines. At the same time, modern distance education and training are being actively promoted among national coal industries. Now 46 large-scale coal enterprises have joined the network and 1.5 million persons have been trained through this network since 2004.

5.8.2 OSH Training

Work safety administration agencies direct the training on OSH in accordance

with the law, and put into practice supervision and management. By the end of 2010, there were 3,661 training units with qualifications for training on OSH.

Between 2006 and 2010, 82177 million people from factories, mines, and commercial and trade businesses nationwide were trained on OSH. The training rate was about 88%. The number trained in high-risk industries has reached 22.01 million persons, including: 2.104 million key leaders in enterprises, 3.156 million safety managers, and 16.75 million special equipment operating persons. Certification rates were 96.6%, 92.8% and 89.7% respectively. In addition, more than 300,000 emergency personnel of all kinds are trained on OSH every year.

The SAWS conducted training for leaders in local work safety inspectorates, and 691 leaders of 310 cities (prefectures) were trained.

5.9 National Human Resource Levels in OSH

The Chinese government pays concerted attention to the development of OSH human resources. By recruiting college and university students and conducting training through modern distance learning, the number of people qualified for OSH activities has steadily increased. By the end of 2010, there were a total of 4.19 million work safety specialists, including: 72,000 safety supervisors and inspectors, 411 high level safety technology professionals, 2.862 million enterprise safety supervisors, 1.174 million high skilled technicians, and 82,000 professional work safety service providers.

Most of the above-mentioned persons have a higher education background. Divided respectively by field: 86% of safety supervisors and inspectors, 100% of safety technology professionals, 32% of enterprise safety management personnel, 19% of high skilled technicians, and 95% of work safety professional service providers have higher education. There are 162,000 safety engineers (including safety evaluators) with registered qualifications in China.

5.10 OSH Policies and Programmes

5.10.1 OSH Policies

In recent years, the State Council issued a series of work safety policies that have played an important role in strengthening work safety in enterprises and promoting work safety nationwide.

(1) State Council Decisions on Further Strengthening Work Safety

In January 2004, the State Council issued the Decision on Further Strengthening Work Safety, setting effective measures for existing problems, based on a scientific analysis of the new situation and new tasks. It was primarily focused on the following six aspects:

—Further emphasizing the importance of work safety and defining the guiding principles and goals of work safety.

—Putting forward work safety goals for 2007, 2010, and 2020.

—Issuing a series of policy measures: first, to establish a work safety license system; second, to establish a safety indicator control system; third, to establish a safety risk deposit system; fourth, to establish business extracting safety funds system; fifth, to enhance the compensation standards for businesses regarding casualties.

—Highlighting the main responsibility of enterprises and paying special attention to grassroots and basic work.

—Establishing and perfecting work safety supervision and inspection administration at all levels and strengthening the construction of work safety supervision and coal mine inspection teams, as well as work safety law enforcement.

—Strengthening leadership in work safety, and establishing a pattern of joint management.

(1) 12 fundamental measures for work safety

At the end of 2005, the State Council discussed special issues for work safety at its 116th Executive Meeting, and determined the following 12 fundamental measures for strengthening work safety:

—First, to develop work safety plan and improve the safety indicator control

system;

—Second, to strengthen the management of the coal industry, formulate and revise work safety standards and rules;

—Third, to increase investment, support key coal mines, manage hazards, and effectively solve key coal mine flaws apparent over the past few years;

—Fourth, to promote progress in safety technology, focusing on spreading a number of mature-technology, advanced and appropriate scientific and technological achievements, and decide on projects and funds;

—Fifth, to issue economic policies, strengthen and improve macroeconomic regulation.

—Sixth, to strengthen education and training, continue to expand enrollment numbers in coal mining majors and related subjects at universities; to regulate the employment system.

—Seventh, to speed up the implementation of work safety supporting legislation, strictly enforcing them.

—Eighth, to be strict on the inspection of rewards and punishments and establish incentives and restraint mechanisms.

—Ninth, to strengthen enterprise's responsibility and basic management.

—Tenth, to seriously investigate responsibility in workplace accidents, and punish dereliction of duty and corruption.

—Eleventh, to advocate a culture of workplace safety and strengthen social supervision.

—Twelfth, to perfect the workplace safety supervision system and establish an emergency rescue system.

(2) The Notice of the State Council on Further Strengthening Work Safety in Enterprises

In 2010, the State Council issued the 'Notice on Further Strengthening Work Safety in Enterprises', which requires establishing ten systems in order to solve serious problems exposed in the process of work safety, further strengthening and standardizing work safety in enterprises. The ten systems to be established are as

follows:

—A system of hidden serious hazards management and serious accident investigation. Related departments should strengthen supervision and inspection of hidden serious hazards and implement a supervisory system for public announcement.

—A rotational system for leading cadres monitoring activities and duties in the workplace. This system asked leaders of enterprises and members of the leading group to take turns in leading teams on-site. The leaders of coal mines and non-coal mine enterprises shall lead the team in visiting the mine site with the workers.

—A system for implementing advanced and applicable technologies and equipment. Six systems in coal mines shall be equipped within three years. Failure to install this equipment within the given time will result in the temporary suspension of work safety and production licenses in accordance with the law.

—A system of long-term investment in work safety. Actively and steadily implement a safety liability insurance system.

—A system of linking enterprises' work safety with its credit rating.

—A system of national emergency rescue bases.

—A system for on-site emergency evacuation. Give the duty officers, team leaders and dispatchers the right of direct decision-making and command to order workers out and stop production immediately in dangerous situations.

—A system of work safety standard approval in high-risk enterprises. Strict approval mechanisms for security access for good products should be in place.

—A system of lump sum compensation for workplace accidental death. Standards of compensation should also be increased.

—A system for a qualification veto of leaders in enterprises. Rule that major leaders of enterprises are primarily responsible for serious or severe accidents will not have lifetime employment as director or manager in the same industry.

5.10.2 National Medium and Long-term Program Outline for Science and Technology Development (2006-2020)

The National Medium and Long-term Program Outline for Science and

Technology Development is to encourage enterprises to increase investment in research and development, and enhance their technical innovation capabilities. Tax deductions for investments in research and development (R&D) and other incentive policies shall be pushed forward to encourage and support enterprises to develop new products, techniques and technologies. Tax preferential policies shall be implemented to promote the growth of high-tech enterprises. Combined with the reform of the corporate income tax and finance systems, R&D special funds shall be encouraged in enterprises.

Small and medium-sized enterprises (SMEs) shall be encouraged and supported to carry out cooperative R&D by means of joint investments or entrustment. Policy support shall be given to the application of innovation results.

Focus shall be put on the research and development of technologies related to alerting, prevention and control of gas, water and engine emergency accidents in pits, and prevention, control, emergency rescue techniques and equipment for fire, blasts, toxic leaks and other major industrial accidents.

5.10.3 The Eleventh Five-Year Plan on Work Safety

For the first time, the Eleventh Five-Year Plan for National Economic and Social Development included a separate chapter with provisions aimed to Strengthen Public Safety Construction, Improve Work Safety Levels. The Eleventh Five-Year Plan on Work Safety was developed according to that national plan. Based on analysis of the current status of work safety, the plan clearly stated the overall goals, ten main tasks, seven supporting measures and nine key projects of work safety, highlighting work safety in coal mines, non-coal mines, hazardous chemicals, and other high-risk industries, with particular emphasis on coal mine safety.

Overall Objectives: By the end of 2010, to improve the work safety supervision system, initially form a normative legal framework on work safety, form a sound system of work safety laws and regulations, technical support, information, training, propaganda and education and emergency rescue.

The plan also put forward the work safety goals for coal mines, non-coal mines, hazardous chemicals, fireworks, construction, special equipment, fire protection, road traffic, water transportation, railway transportation, civil aviation, agricultural machinery, fishing vessels and other key industries and sectors.

Ten Main Tasks: to prevent serious coal mine accidents; to deepen the special rectification, supervision and administration in non-coal mines, hazardous chemicals, fireworks, road traffic, water transportation, railway transportation, civil aviation, building construction, explosive equipment, agricultural machinery, fishing vessel and other key industries and sectors; to carry out major hazards monitoring and serious accident treatment; to be strict in occupational health supervision and inspection; to strengthen capability building of work safety supervision and inspection; to speed up the construction of a work safety legal system; to carry out scientific and technological research and development in the area of work safety, and extend achievements in scientific research; to strengthen training in work safety; to promote awareness of work safety; to strengthen the construction of work safety intermediary agencies.

Seven Supporting Measures: to integrate work safety into economic and social development plans; to implement work safety responsibility; to strictly enforce work safety law; to promote enterprise improvement of work safety conditions through economic means; to increase investment in work safety infrastructure and work safety technological transformation; to implement the strategy of developing work safety through science and education; to strengthen international exchange and cooperation.

Nine Key Projects: These projects concern the prevention of coal mine accidents and the management of major disasters; major hazards treatment; a major hazards census and the construction of a safety monitoring system; the construction of a key technical support center; the construction of work safety information systems; the construction of work safety supervision and inspection administration facilities and equipment; the construction of work safety emergency rescue systems; science

and technology innovation and technology demonstrations; and the establishment of regulations, standards and a culture of workplace safety.

6. High-Risk Industries

6.1 Comparative Risk in High-Risk Industries and Other Industries

Table 6-1 Fatality rate and Comparative Risk in Different Industries of China in 2005

Industry	Deaths per 100 thousand workers	Comparative risk
Coal Mining and Washing	173.88	18.54
Non-coal Mining	145.98	15.56
Construction	31.00	3.30
Manufacture of Chemicals and Chemical Products	23.65	2.52
Electricity, Gas, Water Production and Supply	17.27	1.84
Manufacture of Textiles	4.93	0.53
Agriculture, Forestry, Animal Husbandry, Fishery	3.93	0.42
Transportation, Warehousing, Postal Services	3.50	0.37
Water Conservancy, Environment, Public Facilities Management	2.16	0.23
Wholesale and Retail	2.05	0.22
Research, Technical Services, Geological Exploration	1.89	0.20
Education	0.22	0.02
Finance	0.06	0.01
National average	9.38	1.00

6.2 Employment in High-Risk Industries

Table 6-2 Number of Persons Employed in High-Risk Industries

Industry	Employment * (10 thousand persons)
Coal Mining	800
Non-coal Mining	350
Construction	4000
Hazardous Chemicals	450
Total	5600

*Source: The data is estimated by industrial authorities.

7. Statistics on Occupational Accidents and Diseases

7.1 Statistics on Occupational Accidents

7.1.1 Statistics on Four Indicators

According to the Eleventh Five-Year Plan on Work Safety, the specific fulfillment of the four indicators, brought into the National Economic and Social Development Statistics Annual is as follows (Table 7-1).

Table 7-1 Statistics on Four Indicators

Number	Name of indicators	2006	2007	2008	2009	2010
1	Workplace fatality rate per 100 million Yuan GDP	0.558	0.413	0.312	0.248	0.201
2	Workplace fatality rate per 100,000 workers in the factories, mines and commercial and trade businesses	3.33	3.05	2.82	2.40	2.13
3	Fatality rate of road traffic accidents per 10,000 motor vehicles	6.2	5.1	4.3	3.6	3.2
4	Fatality rate per million tons of coal	2.041	1.485	1.182	0.892	0.749

7.1.2 Statistics on Fatal Occupational Injuries in Factories, Mining, Commerce and Trade Enterprises

Table 7-2 Number of Fatalities in Factories, Mines, Commerce and Trade Enterprises from 2006 to 2010

Year Item	2006	2007	2008	2009	2010
Total	14,412	13,886	12,865	11,536	10,616
Coal Mines	4,746	3,786	3,215	2,631	2,433
Metal and Non-metal Mines	2,277	2,188	2,068	1,540	1,271
Construction	2,546	2,722	2,702	2,760	2,769
Hazardous Chemicals	277	161	157	149	135
Fireworks Firecrackers	276	242	192	188	212
Factories, Commerce, Trade and Others	4,290	4,787	4,531	4,268	3,796
Among them:					
Metallurgy		391	314		
Non-ferrous metals		95	55		
Chemicals		170	197	151	219
Petroleum		27	21	14	14
Building Materials		439	404		
Machinery		486	561		
Light Industry		568	446		
Textiles		52	52		
Electricity		239	276	200	143
Others		2,320	2,205		

7.2 Statistics on Occupational Diseases

7.2.1 Occupational Diseases and Hazard Situation

During the Eleventh Five-Year period, the prevention of occupational diseases has made positive progress. However, the situation is still very serious. There are five main problems:

--First, the large number of occupational disease patients. There is a cumulative total of more than 500,000 reported cases of occupational disease over the past 30 years, following the reform and opening policy. In 2010 alone, there were 27,240 reported cases of occupational disease, according to the Ministry of Health.

--Second, high incidences of pneumoconiosis, occupational poisoning and other occupational diseases. Pneumoconiosis is the biggest occupational disease reported in China, with 23,812 cases reported in 2010, accounting for 87.42% of the total.

--Third, the wide range of occupational hazards. There are varying degrees of occupational hazards associated with coal, metallurgy, building materials, nonferrous metals, as well as automotive, pharmaceutical and other industries.

--Fourth, serious health damage to workers. Chronic diseases such as pneumoconiosis are often difficult to cure once caught and disability rates are high.

--Fifth, the large number of mass occupational poisoning incidents. Mass occupational poisoning incidents are occurring intermittently, becoming a public health problem and affecting social stability in China.

7.2.2 Statistics on New Cases of Occupational Diseases

The statistics of new cases of occupational diseases during 2006-2010 periods are shown in the following table:

Table 7-3 Classified Statistics on Occupational Disease Cases from 2006 to 2010

Type \ Year	2006	2007	2008	2009	2010
Total	11,519	14,296	13,744	18,128	27,240

Pneumoconiosis	8,783	10,963	10,829	14,495	23,812
Acute Occupational Poisoning	467	600	760	552	617
Chronic Occupational Poisoning	1,083	1,638	1,171	1,912	1,417
Others	1,186	1,095	984	1,169	1,394

8. Employers' and Workers' Organization Activities

8.1 Employers' Organization

8.1.1 Organization Structure

The China Enterprises Confederation (CEC) is a national non-governmental organization. It is an association of enterprises and the enterprise managers, consisting enterprises and relevant economic, scientific research, journalist and enterprises' manager group. The CEC has 564,000 member enterprises, 36 national industrial associations, 43 provincial enterprise associations and 260 major industrial city enterprise confederations. It is the only organization representing Chinese employers' organizations in the International Organization of Employers (IOE) on behalf of China.

The CEC has 16 Departments. The Employers' Department is responsible for coordinating OSH activities among the relevant departments and local and sectoral associations, and developing training and consulting services. The China Enterprises Information Centre is responsible for the release of relevant information and CEC activities on OSH. The Membership Working Department is responsible for maintaining contacts with member enterprises and collecting information on the needs of member enterprises in this respect.

8.1.2 OSH Activities

(1) Participate in drafting OSH policies, legislative consultation and research

Since its establishment, the CEC has actively participated in drafting OSH policies, legislative consultations and research and has provided comments and suggestions. The CEC was involved in the preparatory work for China's ratification of the ILO Convention No. 155, coordinated by the former Ministry of Labour and Social Security with the participation of the Ministry of Foreign Affairs, SAWS, the Ministry of Health, ACFTU and other units, as well as representatives of the

International Labour Organization. The CEC contributed greatly to the ratification and implementation of the Convention.

(2) Improve the occupational safety and health situation of enterprises

To improve the occupational safety and health situation and enhance occupational safety and health standards in Chinese enterprises, the CEC has carried out numerous activities in the field of occupational safety and health independently and has cooperated with domestic and foreign organizations and institutions for many years, e.g. organizing training and seminars on clean production, integrating improvements in the working environment, occupational safety and health, and workplace HIV/AIDS prevention into its corporate social responsibility programmes. The CEC has been active in promoting safety investments and a safety culture.

The CEC also organized participatory and practical training on OSH for small enterprises by using the ILO training manual on Work Improvements in Small Enterprises (WISE)

(3) Promote the Responsible Care Programme in China

In 2002, the China Petroleum and Chemical Industry Association (CPCIA) signed a Cooperation Agreement with the Association of International Chemicals Manufacturers (AICM) and decided to launch the Responsible Care Program in the petroleum and chemical industries in China. They organized two Responsible Care Conferences - one in Beijing in 2005 and one in Shanghai in 2007. In April 2007, a launching ceremony for Responsible Care was held in Beijing. Seventeen Chinese companies and chemical development zones signed a letter of understanding and issued a written proposal to the whole industry. The CPCIA organized experts to draft six codes of responsibility and undertook pilot work. In order to better promote Responsible Care in industry, the CPCIA established the China Petroleum and Chemical Leading Group on Responsible Care. Integrating its internal resources, the Association set up the Quality Safety and Environmental Protection Department, which is responsible for promoting the Responsible Care programme, paying special attention to Responsible Care pilot enterprises, strengthening collaboration with professional associations and local chemical industry associations in order to jointly

promote Responsible Care work.

In recent years, the CPCIA has held the China Responsible Care promotion conference and large-scale exchange conferences many times, and formulated Implementation Guidelines for Responsible Care and Responsible Care Operations Guidelines with industry features; organized a group of key enterprises and multinational enterprises in China to sign the Responsible Care programme; and consistently invited the mainstream media to participate in widespread publicity for Responsible Care activities in China.

(4) Popularize the Occupational Safety and Health Management System

Since OSHMS certification pilot work was carried out in enterprises, the CEC has actively participated in and promoted this work. After years of development, by August 2011, a total of 75 OSHMS certification agencies were granted qualifications, as were hundreds of agencies now providing technical consulting services. These enterprises, having received OSHMS certification, are found throughout the country, particularly in the electric power, construction, metallurgy, petrochemical manufacturing sectors. By March 2011, more than 30,000 enterprises have been accredited with OSHMS certification.

8.1.3 Participation in National Tripartite Consultations

The CEC participates in the national tripartite consultation mechanism that coordinates labour relations, and keeps contact with the SAWS and other authorities for OSH consultation. It is involved in discussions on the Law on Work Safety organized by SAWS and on how enterprises can implement the law. It attended seminars on China's occupational safety and health management system held by the SAWS, and discussed issues on how to strengthen work safety at the enterprise level and how to develop an enterprise safety culture.

At provincial and municipal level, local enterprise confederations participate in policy formulation and enforcement activities of government departments and trade unions in the field of occupational safety and health through the tripartite consultation mechanisms or joint conference systems.

8.2 Workers' Organization

8.2.1 Organizational Structure

The All-China Federation of Trade Unions (ACFTU) is a mass organization of the working class formed voluntarily by Chinese workers and staff members. It protects the legitimate interests and democratic rights of workers and staff members. ACFTU is the leadership authority of local federations of trade unions and industrial trade unions nationwide.

The Labour Protection Department of the ACFTU is responsible for occupational safety and health. Its major functions are as follows: to participate in studying and drafting laws, regulations and policies on OSH; to participate in the investigation and handling of major accidents and serious occupational hazards; to participate in examination and approval of work safety and health facilities of new national projects to be built; to guide the local trade unions to develop training and education programmes on OSH and mass activities.

8.2.2 OSH Activities

(1) Participate in the development of OSH legislation

The ACFTU attaches great importance to participation in the formulation of State laws, regulations and standards on occupational safety and health. In the formulation of the Labour Law, the Law on Occupational Disease Prevention, the Law on Work Safety, and Regulations on Work Injury Insurance and other matching regulations, the ACFTU participates actively and puts forward comments and requests. Provisions stipulating that the ACFTU shall safeguard workers' rights on occupational safety and health and organize workers to supervise work safety etc were integrated into relevant laws and regulations.

(2) Participate in investigation and research

The ACFTU considers investigation and research to be an important premise to participation in legislative and policymaking. In the recent years, research reports submitted by the ACFTU involving workers' occupational safety and health were

accorded great importance by the State Council and relevant government departments, such as the Survey Report on Employees' OSH in Non-Public Enterprises, Reports on Strengthening China's Prevention of Occupational Disease and Reports on Occupational Disease Prevention Status and Control Measures in China. These played a positive role in the promotion of national OSH work and safeguarding workers' legitimate rights and interests in safety and health.

(3) Conduct OSH training

An important task of the ACFTU is training trade union cadres and labour protection inspectors at all levels; for some time, it has carried out professional training for trade union labour protection cadres over successive years. The Regulations on Trade Union Labour Protection Supervision and Inspection make it clear that an essential requirement for the appointment of inspectors is that the person must be qualified for the post after training and examination.

The ACFTU and China Central Television jointly hold TV training on safety knowledge for workers nationwide, which popularizes safety and health knowledge on the basis of work safety features of teams and groups and increases the OSH awareness and skills of vast numbers of workers. An estimated 100,000 trade union group leaders, team and group safety inspectors, group heads and frontline workers have received training. The ACFTU also popularizes occupational safety and health knowledge among workers by compiling work safety reading materials and developing quiz games on work safety knowledge.

The ACFTU and the National Centre for Disease Prevention and Control jointly launched Research on Trade Union Participation in Occupational Disease Prevention, putting forward new modes of trade union participation in occupational disease prevention. On the basis of investigation, the ACFTU issued a Proposal on Strengthening Trade Unions Participation in Occupational Disease Prevention, which guides local and enterprise trade unions in carrying out prevention and control of occupational diseases in terms of promotion of government supervision and inspection, enterprise self-discipline and giving full play to the role of trade unions. The ACFTU also held special training courses for trade union participation in the

promotion of occupational disease prevention to help trade union labour protection cadres at all levels understand the content of Trade Union Participation in the Occupational Disease Prevention, to grasp key points, clarify ideas and carry out tasks.

(4) Widely apply Chemical Safety Cards with information on Toxic and Harmful Chemical Substances and Safety Checklists

Disseminating chemical safety cards containing information on toxic as well as harmful chemical substances and safety checklists across the country is the primary objective of a cooperation project between the ACFTU and the ILO concerning occupational safety and health. Since the 1990s, the ACFTU has improved the practicality and effectiveness of labour protection supervision of local trade unions by using such cards with information on toxic and harmful chemical substances and safety checklists. The ACFTU has widened its scope of application and improved the quality of the cards through surveys, studies, seminars, training of trainers' courses, experience exchange meetings and specific guidance. This work has met with acclaim from both enterprises and workers.

In order to further standardize the safety supervision work of trade unions at all levels and improve the means of supervision, the ACFTU has arranged for relevant specialists to compile corresponding safety checklists for the construction, coal mine and metallurgy industries – particularly those with higher fatality rates and serious occupational hazards.

(5) Perform safety supervision duties

The ACFTU has consistently attached importance to its role in supervising OSH in workplaces, clearly reflected in the Labour Law, the Trade Union Law, the Law on Safety in Mines and the Law on Work Safety. Related provisions are summarized as follows:

- 1) The enterprise legal officer must report OSH work to the Workers' Representative Congress on a regular basis and accept supervision.
- 2) When the enterprise holds a meeting related to work safety, trade union representatives should participate and provide comments and suggestions.

3) The trade unions have the right to participate in the supervision and inspection of safety and health facilities that are designed, constructed and put into operation and used simultaneously with projects being built, renovated or expanded.

4) Trade unions have the right to ask production and business units to correct actions infringing upon workers' legitimate rights and interests in violation of OSH laws and regulations.

5) The trade unions have the right to propose rectification measures when they find that enterprise management is running their business in violation of rules, forcing workers to run risks in operations, or where major potential safety and health hazards are identified.

6) When situations that jeopardize workers' safety and lives are identified, trade unions have the right to ask enterprise management to take emergency measures to organize workers to evacuate from dangerous areas;

7) Trade unions have the right to participate in investigation activities and accidents handling, to propose suggestions to relevant departments for dealing with accidents, and request those directly responsible and relevant responsible personnel to undertake responsibilities.

To implement the above provisions and better safeguard the legitimate rights and interests of workers in occupational safety and health, the ACFTU has adopted some measures, putting forward regulations and rules, revised and promulgated Regulations on Trade Union Labour Protection Supervisors, Regulations on the Work of Grassroots Trade Union Labour Protection Supervision Committees, and the Regulations on Trade Union Group Labour Protection Supervisors. These Regulations have specific provisions on the forms of organization, activities, methods, and the rights of the trade unions to carry out labour protection supervision, making it clear that the trade unions should carry out labour protection supervision and establish a system of labour protection supervision.

In addition to helping grassroots trade unions to fulfill their supervision duties, the ACFTU also actively participates in joint safety inspections or special inspection activities organized by relevant governmental departments. Since 1998, the ACFTU

has sent its experts, representatives, and supervisors to participate in more than 200 accident investigations involving casualties and serious occupational hazards. In the process of investigation and handling accidents, the ACFTU strengthened its collaboration with relevant departments, and played a unique role in safeguarding workers' rights and interests in OSH.

(6) Launch Safety and Health Cup Contest

Since 1999, the ACFTU and SAWS have jointly organized and developed Safety and Health Cup contests nationwide. The enterprises and workers responded warmly to the Safety and Health Cup contest and actively participated in activities. As a result, contest coverage has been increasing with an increasing number of participants each year. The Safety and Health Cup contest emphasizes workers' participation in the promotion of work safety at work and mobilizes workers to propose ideas and means of action for work safety, which not only improves work safety management at the enterprise level, but also increases management and worker safety awareness. This activity creates a strong work safety environment and plays an active role in controlling and reducing all kinds of workplace accidents.

8.2.3 Participation in National Tripartite Consultations

ACFTU is a member of the State Council Work Safety Committee. It not only attends the Committee's meetings to participate in research, planning, guidance, and coordination of the national work safety agenda, and the resolution of major problems on work safety, but also participates in joint meetings with relevant departments of the State Council on related issues (including occupational safety and health). In August 2001, the National Tripartite Consultation Mechanism for coordinating labour relations was set up, which is composed of the former Ministry of Labour and Social Security, now the Ministry of Human Resources and Social Security, (on behalf of the government), ACFTU (on behalf of workers) and the China Enterprise Confederation (on behalf of enterprises). The ACFTU voices workers' opinions in tripartite consultation and consensus-making on labour relations with the aim of safeguarding workers' legitimate rights and interests. The ACFTU has a positive cooperative

relationship with the SAWS in safety inspection, special safety campaigns, investigation and handling of major accidents. The labour protection department of the ACFTU has established a regular working relationship with the relevant departments of the SAWS. At the province, city and county levels, communication and cooperation exist between governments, enterprises and trade unions regarding occupational safety and health. In some provinces and cities, a joint conference mechanism with the government at the same level has been regularly organized.

Among the national industrial trade unions, the Chinese Seamen and Construction Workers' Union, the Ministry of Construction and the China Construction Association (on behalf of the trade association in the construction system), have established a tripartite conference mechanism for coordinating labour relations in the construction industry nationwide. The tripartite conference mechanism is to exchange ideas on coordinating labour relations in the construction sector on the basis of equal consultation by jointly seeking solutions through cooperation. The major functions of the tripartite conference mechanism are: to study and analyze the impact of economic restructuring policies and economic, and social development plans on employment, wages and income, the minimum wage level, working hours and leave, occupational safety and health, special protection of female workers, welfare and benefits, vocational and technical training, and social insurance of construction enterprises, and to propose policy suggestions and proposals.

9. National OSH Activities

9.1 Regular Activities

9.1.1 National Work Safety Month

National Work Safety Month replaced the original Work Safety Week in 2002 and is held in June every year. The Propaganda Department of the Central Committee of the Communist Party, the State Administration of Work Safety, the State Administration of Radio Film and Television, the All-China Federation of Trade Unions and the Central Committee of the Communist Youth League (CCYL) jointly formed the Guiding Committee of the National Work Safety Month, under which an Office was established responsible for organizing and guiding local governments and sectors to implement the National Work Safety Month. The office is located in the Publicity and Education Center of SAWS.

Table 9-1 National Work Safety Month Themes (2006-2011)

No.	Year	Activity Theme
1	2006	Safe Development, flourishing country and peaceful people
2	2007	Comprehensive Management to Ensure Safety
3	2008	Eliminating Hazards and Preventing Accidents
4	2009	Loving Life, Safety Development
5	2010	Safety Development, Prevention First
6	2011	Safety Responsibilities, Focusing on Implementation

9.1.2 10 000-li (5,000 kilometer) Work Safety Tour

In June 2002, the Propaganda Department of the Central Committee of the Communist Party, the State Administration of Work Safety, the State Administration of Radio Film and Television, the All-China Federation of Trade Unions and the Central Committee of the Communist Youth League jointly organized a national 10, 000-li (5,000 kilometer) Work Safety Tour. This activity has been held annually

for ten years now, and has been positively received. It plays a positive role in promoting laws, regulations, and policies related to OSH, creating a culture of safety, protecting life, focusing on safety, promoting stability and the improvement of work safety overall throughout China. These activities have been warmly received.

9.1.3 National Safety and Health Cup Contest

Since 1999, the SAWS and the ACFTU have jointly organized and developed the National Safety and Health Cup contest for the purpose of enhancing awareness of workers' safety and health, popularizing work safety knowledge, effectively lowering the incidence of accidents and occupational hazards, and safeguarding the workers' legitimate rights and interests with regard to safety and health.

For more than 10 years, this activity has played an important role in promoting enterprise work safety. The incidence of accidents and occupational diseases of enterprises participating in this contest have been effectively controlled. Overall, the work safety status of enterprises has improved. In 2010, the SAWS and ACFTU jointly held a national television and telephone conference on commendation and experience exchange of Safety and Health Cup contest. The Handan Power Plant, of the National Power Development Co., Ltd., and nine other enterprises received awards as superior enterprises during the National Safety and Health Cup Contest and the National Labour Award.

9.1.4 Youth Work Safety Demonstration Post

The activities of the Youth Work Safety Demonstration Post have been organized by the CCYL and SAWS for the purpose of improving young workers' skills in work safety, participation in management and making contributions to work safety, and play an overall positive role in enterprise work safety. Since the activity was first held in 2001, national regions, the Communist Youth League organization in enterprises have developed many works based on the above-mentioned goals and have achieved better results. The activities of the Youth Work Safety Demonstration Post have gradually become an important part of promoting the development of occupational safety and

health at the enterprise level.

9.1.5 Forum on Safety Development

In order to implement the National Medium and Long-term Plan for Science and Technology Development (2006-2020), the State Council Decision on the Implementation of the Science and Technology Plan to Strengthen Independent Innovation Ability' and the 'Spirit of National Work Safety' conference promoted a strategy of 'Science and Technology for Safety', accelerating the independent innovation of safety science and technology, supporting work safety, guiding safety development through high-tech means and building a harmonious society. In 2006, the SAWS decided to hold the 'High-Level Forum on Safety Development, Safety Science and Technology' forum in China. It has overall successfully held five sessions, which is not only an important activity of the SAWS, but also the premier annual event in the field of work safety. The main focus of the forum is to discuss the pressing and difficult issues on work safety taking into account the contemporary context. The forum is a platform of dialogue and communication between governments and enterprises, and is both a pragmatic and an efficient industry event for the interpretation of policy and development opportunities. Participants are from government departments, competent departments of industry, and enterprises. Experts and scholars from universities and research institutes also attend the Forum.

9.2 Special Activities

9.2.1 Silicosis and Asbestosis Disease Elimination Campaign

In order to prevent, control and eliminate occupational hazards, the Chinese government promulgated the 'National Plan on Occupational Disease Prevention' (2009-2015) on May 24, 2009. This plan was created in accordance with the Law on the Prevention and Control of Occupational Diseases. Key targets of occupational disease prevention campaigns were listed, including coal miners' pneumoconiosis, silicosis, asbestosis and other pneumoconiosis, as well as measures on carrying out

investigations and research on prevention, control technology and the pathogenesis regularity of pneumoconiosis disease. The plan also outlines measures for comprehensive management projects addressing dust hazards in the workplace. The major goals of the program are as follows:

--First, to enhance employers' and workers' awareness of the prevention and treatment of occupational diseases, and to reduce the high occupational disease rates. It aims to reduce the average annual growth rate of new pneumoconiosis cases from the current 8.5% to 5% by 2015.

--Second, to conduct occupational health training to more than 90% of employees working in hazards places, to increase the number of businesses that pass surveillance tests regarding dust, toxic, and radioactive substances and other major risk factors to more than 80%; increase the pre-assessment rate for construction projects with possible occupational hazards to more than 60%, increase the percentage of workplaces evaluated to more than 65%, and the occupational health examination rate for workers exposed to occupational hazards to more than 60 %.

--Third, to increase the coverage rate of workers' injury insurance to more than 90%. Occupational disease patients should receive timely treatment. Their rights and interests should be effectively safeguarded.

9.2.2 Smoking Bans in Workplaces

Since 1992, the Ministry of Education, the Ministry of Health and other departments carried out a 'No Smoking Schools' event. By the end of 2004, 12,094 primary and middle schools and universities had been named 'No Smoking Schools'. In 2005, the 17th Session of the Standing Committee of the 10th National People's Congress adopted the WHO Framework Convention on Tobacco Control (WHO FCTC). In January 2006, this convention came into force in China. Each year, on May 31, World No Tobacco Day events are held across China, including public events intended to curb smoking, and to encourage non-smoking families and non-smoking workplaces. The Ministry of Health also organizes national smoking ban 'quit and win' contests as part of the international efforts in this regard.

Many local governments nationwide have issued local regulations, and enacted smoking bans in public places. In April 2007, the Beijing Municipal Government launched the Action on Smoking Bans in Restaurants. Since October 2007, smoking is prohibited in all taxis in Beijing. In March 2008, the Regulations on Smoking Bans in Public Places in Beijing were issued by the Beijing Municipal Government and came into force on May 1, 2008. Smoking is currently prohibited in ten types of public places. They are as follows: indoors at designated medical institutions, nurseries and kindergartens, primary and middle schools, technical middle schools, higher learning institutions and other schools, teaching areas of training institutions, science education places, culture and art places, stadiums and gyms, sports grounds, contest and spectator areas of sports grounds.

9.2.3 HIV/AIDS Prevention and Control in Workplaces

The Chinese government has progressively paid increasing attention to HIV/AIDS prevention and control. Since the 1990s, China formulated the Medium and Long-Term Program for HIV/AIDS Prevention and Control and the China Action Plan for Preventing and Controlling HIV/AIDS, established the Working Committee for HIV/AIDS Prevention and Control of the State Council, and adopted a series of major decisions and measures to curb the spread of HIV/AIDS.

On January 26, 2007, the China Education Project on HIV/AIDS in the Workplace was launched in Beijing. Migrant workers were the main target population of this project. The project had a three year lifespan, and aimed to help enterprises, employees and their families, through various education and training activities, to teach factual and comprehensive information on HIV/AIDS and how to prevent HIV/AIDS contraction, increase people's awareness and willingness to resist the spread of the HIV/AIDS epidemic, and reduce workplace discrimination against HIV/AIDS positive people. The project had selected Yunnan, Guangdong and Anhui as pilot provinces. Except for selected mining, construction and manufacturing industries, HIV/AIDS education pilots were conducted at two companies chosen from every industry for workplace education. Employee training activities on AIDS

prevention were conducted in areas where migrant worker employment was higher than the norm.

9.2.4 Program to Vaccinate Health Care Workers against Hepatitis B

In 1979 and 1992, China twice conducted national surveys on the hepatitis epidemic through blood serum tests to gain a clearer understanding of the spread of the hepatitis virus in the population. Faced with high rates of Hepatitis B infection, local governments strengthened efforts on scientific research on prevention and treatment, formulated strategies and took comprehensive measures to control its spread. This promoted the prevention and control of the Hepatitis B virus into a new stage.

On 28 January 2006, the Ministry of Health formulated the National Plan on Hepatitis B Prevention and Treatment (2006-2010) (MOL Disease Control No.39, 2006). Major prevention measures included: strengthening Hepatitis B vaccination, controlling the spread of Hepatitis B virus, avoiding infection of Hepatitis B virus through blood; establishing and perfecting a national monitoring system of the hepatitis B conventional epidemic, monitoring infection rates in high-risk groups and strengthening publicity and education to increase public awareness of measures to prevent the spread of hepatitis B.

9. 3 International Technical Cooperation on OSH

9.3.1 Cooperation between SAWS and ILO

(1) SAWS has sent several officials to attend both regional and International Labour Conference meetings in the last few years. They actively participated in the development of ILO standards on occupational safety and health.

(2) In terms of safety culture and safety knowledge popularization, SAWS and ILO have jointly organized a series of activities, such as the celebration of the World Day for Safety and Health at Work on April 28; the China International Forum on Work Safety, and also other seminars and workshops on mine safety, hazardous

chemicals, and coal mine risk assessment. All these activities have contributed to the construction of a safety culture and the popularization of safety knowledge.

(3) In terms of coal mine safety, the ILO assisted the Changsha Training Center for Small-Scale Coal Mines to establish a Gas Inspectors Training Plan in 2005. Since 2004, the ILO, together with the ICEM (International Federation of Chemical, Energy, Mine and General Workers' Union) and the ICMC (International Council on Mining and Metals), the two most important international industrial organizations of workers and employers in the mining sector, created a framework for coal mine safety technical cooperation in China. It carried out other activities afterwards, including tripartite seminars in June 2006 and a coal mine risk assessment seminar in April 2007.

(4) In March 2006, the SAWS cooperated with the ILO and WHO to organize a National OSH Planning Workshop to help China improve the national OSH plan.

9.3.2 Other International Cooperation

(1) Bilateral cooperation between governments

The SAWS has established cooperative relationships with OSH supervision departments and institutions of the following countries: the United States, Australia, Japan, Russia, Germany, the United Kingdom, France, Denmark, Finland, Spain, Poland, Czech, Canada, New Zealand, Brazil, South Africa, the Republic of Korea, India, Singapore, Malaysia, Indonesia, and Vietnam. China has also established governmental cooperation mechanisms with USA, Australia, Germany, Japan, Poland and India in OSH.

(2) Cooperation with international organizations

The SAWS has established a cooperative relationship with the World Health Organization (WHO), International Social Security Association (ISSA) and the International Association of Labour Inspection (IALI). In 2003 and 2004, SAWS joined the ISSA and IALI as both a contact member and formal member respectively and carried out cooperative and communication activities with the UNDP, UNIDO, OECD, World Bank (WBG), Asian Development Bank (ADB), EU, ASEAN, etc.

(3) Cooperation with non-governmental organizations and enterprises of other countries

The SAWS has developed various exchanges and cooperation programs with the following organizations and companies: the National Safety Council of the United States, the Australian Safety and Compensation Council, the European Chemical Industry Council, International Strategy for Disaster Reduction, Association of British Mining Equipment Companies, DGUV, VDMA (German Machinery and Plant Manufacturing Association), Japan Industrial Safety and Health Association, Japan Coal Energy Center, Korea Occupational Safety and Health Association (KOSHA), Council for Scientific and Industrial Research of South Africa, the Lloyd's Register of Shipping, DNV, Liberty Mutual Insurance Group, DOW, Dupont, 3M, Honeywell, Anglo-American, BHP Billiton, BACOU, RUHR, BASF, BAYER, HUNOSA Coal Company of Spain etc.

9.3.3 The Main Cooperative Projects

(1) UNDP Program on Strengthening Coal Mine Safety Capacity in China

The UNDP, SAWS and the China International Economic and Technical Exchanges (CIETE) jointly launched a project on Strengthening Coal Mine Safety Capacity in China, which began in January 2007.

The purpose of the project was to improve current coal mine safety standards and regulations and enhance law enforcement capabilities. More than 1,000 miners and their families received training and education during the implementation of this project, focusing on township mines in which fatality rates are about twice the national average, to improve their safety awareness and management level. Pilot provinces for this project were Anhui, Guizhou, Henan, Liaoning and Shanxi. Safety education and training of coal miners and their families was carried out in those provinces.

(2) China-US Cooperative Program on Mine Safety

China-US Cooperative Program on Mine Safety was a major work safety collaborative initiative between the governments of China and the United States. The

project began in October 2002. The purposes of this project was to strengthen mine emergency management systems, enhance government's capacity in law enforcement and inspection, improve the overall qualities of mine managers and miners, and develop a model mine.

Through the implementation of this program, the mine rescue system in China was constantly improved, capacity-building for coal mine inspectors was promoted, and the quality of coal mine safety training was improved.

In the course of this five-year project, 48 trainers from national A-Level and B-Level coal mine safety training institutions, 27 trainers from the regional rescue bases, and 36 trainers from the inspection system received training.

(3) China-Japan Cooperation Project on Work Safety

The China-Japan Cooperation Project on Work Safety was an important cooperative project between the Chinese and Japanese governments in the field of work safety. It was signed on October 25, 2006 and started on October 30, 2006. The goal of this 4-year project was to improve China's scientific and technical capacity in hazardous chemicals management, machine safety and occupational hazards management, to strengthen the construction of China's safety science and technology capacity, and to improve supervision on work safety at the enterprise management level in Ningbo and Benxi (two pilot cities selected for the project), to improve China's capacity in science and technology on work safety, and to achieve the ultimate goal of improving the work safety situation throughout China by promoting project achievements.

After four years of China-Japan cooperation, the following work was completed:

1) Three key research tasks related to laws and regulations were completed, as has a system of standards for work safety, completed through discussions and exchange.

2) A series of activities were organized, such as training on Zero Accident, training courses in Japan, accident cases analysis, joint inspection on work safety, and cooperation between companies.

3) The capacity of the China Academy of Safety Sciences and Technology

(CASST) in the field of tests of respiratory protective equipment and was enhanced workplace environment, and identification of hazardous chemicals.

4) Training guidelines and training materials were developed, trainers trained and the training capacity of the CASST improved.

(4) Sino-Japan Training Project on Coal mine Safety and Technology

On April 8, 2002, a memorandum of understanding on a coal mine safety training project was signed by the SAWS and the New Energy Development Organization (NEDO) of Japan. It was a five-year project sponsored by the Japanese government to help China train coal mine inspectors, management personnel, engineers and technicians.

In early 2007, due to the successful results of this project, it was extended for three years by the approval of the Chinese and Japanese governments.

This project entailed the training of key coal mine safety personnel; upgrading coal mine safety technology and management in China through the introduction of advanced Japanese coal mine safety technologies, equipment and safety operation methods; and Sino-Japanese exchange and cooperation in the field of coal mine safety was further expanded. Mr. Ando, director of the Japan Coal Energy Center, was awarded the 2006 Friendship Award by the Chinese government for the outstanding contributions of the project.

9.3.4 China International Forum on Work Safety/China International Occupational Safety & Health Exhibition

The China International Forum on Work Safety/China International Occupational Safety & Health Exhibition was initiated and jointly hosted by the SAWS and the ILO in 2002. It has been held every two years and has become an important international activity of the SAWS. Since that time, the Forum and Exhibition have been held five times in Beijing, and have attracted wide attention from home and abroad, being positively received by the international society. After several years of efforts, it has grown into an important platform for SAWS exchange and cooperation with international countries.

(1) Theme of the first China International Forum on Work Safety: Work Safety and Occupational Health in the 21st Century.

(2) Theme of the second China International Forum on Work Safety: Safety, Health and Development.

(3) Theme of the third China International Forum on Work Safety: Safe Development and a Harmonious Society.

(4) Theme of the forth China International Forum on Work Safety: Safety Development, Paying attention to People's Livelihood.

(5) Theme of the fifth China International Forum on Work Safety: Safety Development, Prevention First.

10. General information

10.1 Population Data

10.1.1 Total Population

On November 1, 2010, China conducted the sixth national census. in which the total population was found to be 1,370,536,875.

1,339,724,852 people were in the 31 continental provinces, autonomous regions and municipalities.

7,097,600 people were in Hong Kong Special Administrative Region (provided by Hong Kong SAR Government).

552,300 were in Macau Special Administrative Region (provided by Macau SAR Government).

23,162,123 were in Taiwan province (Taiwan authorities announced).

10.1.2 Economically Active Population

According to the bulletin reported by the Ministry of Human Resources and Social Security in 2009, by the end of 2009, the total number of employees nationwide was 779.95 million (not including Hong Kong SAR, Macau SAR, and Taiwan); an increase of 5.15 million compared to 2008. Among them, 297.08 million worked in primary industries, accounting for 38.1% of the total. 216.84 million worked in secondary industries, accounting for 27.8%; 266.03 million worked in tertiary industries, accounting for 34.1%. The total number of urban employed at the end of the 2009 was 311.2 million, an increase of 9.1 million over 2008 levels.

In 2009, the new employees entered the job market in the urban area numbered 11.02 million; 5.14 million laid-off workers were re-employed.

10.1.3 Social Security

In recent years, the social security system in China has been consistently improving, the coverage of social insurance system was expanded, as has the number

of people insured. Fund sizes have also been growing. According to the bulletin reported by the Ministry of Human Resources and Social Security in 2010, the status of five social insurance institutions, namely pension, medical, unemployment, work injury, and maternity insurance were as follows:

(1) Pension insurance

By the end of 2010, 257.07 million people were participating in the urban basic pension insurance scheme nationwide - an increase of 21.57 million as compared with the previous year. Among them, 194.02 million were enterprise workers and 63.05 million were enterprise retirees. This was an increase of 16.59 million and 4.98 million respectively, compared with the previous year. By the end of 2010, 32.84 million migrant workers participated in the basic pension scheme, an increase of 6.37 million compared with the previous year. 236.34 million workers participated in the enterprise pension scheme, 26.07 million more than 2009.

By the end of 2010, 838 counties (cities, districts, and towns) in 27 provinces and autonomous regions as well as partial counties and districts in four municipalities carried out the national pilot of the new rural social pension insurance. It was found that 10,277 million have participated in the new rural social pension insurance.

(2) Medical insurance

At the end of 2010, 432.63 million people participated in the urban basic medical insurance scheme nationwide, 31.16 million more than in 2009. Among them, 237.35 million workers participated in the urban employee basic medical insurance scheme (an increase of 17.97 million from 2009 levels); 195.28 million participated in urban resident basic medical insurance scheme (an increase of 13.19 million from 2009 levels). Among the urban basic medical insurance for workers, 177.91 million were in-service workers and 59.44 million were pensioners (a 13.82 million and 4.17 million increase respectively on 2009 levels). By the end of that year, 45.83 million migrant workers participated in the basic health insurance scheme, an increase of 2.49 million compared with the previous year.

(3) Unemployment insurance

By the end of 2010, 133.76 million people participated in the unemployment

insurance scheme, an increase of 6.6 million compared with the previous year. Among them, 19.9 million migrant workers participated in unemployment insurance, an increase of 3.47 million compared to the previous year. By the end of that year, 2.09 million people had received unemployment insurance benefits, a decrease of 260,000 compared with the end of the previous year. A total of 590,000 migrant workers with labour contracts that had expired without renewal, or whose contracts were terminated in advance, were paid a lump sum subsistence allowance.

(4) Work injury insurance

By the end of 2010, 161.61 million people participated in the work injury insurance scheme nationwide, an increase of 12.65 million compared with the end of the previous year. Among them, 63 million migrant workers participated in the work injury insurance scheme, an increase of 7.13 million compared with the end of the previous year. 1.141 million people were identified as having suffered work injuries that year, an increase of 188,000 compared with the previous year; 419,000 were identified with disabilities, an increase of 25,000 compared with the previous year. 1.47 million people benefited from the work injury insurance funds in 2010, an increase of 180,000 compared with the previous last year.

(5) Maternity insurance

By the end of 2010, 123.36 million people participated in the maternity insurance scheme nationwide, an increase of 14.6 million compared with the end of the previous year. 2.11 million people benefited from insurance funds, an increase of 370,000 compared with the previous year.

10.2 Literacy Levels

According to the national census on November 1, 2010, across the 31 continental provinces, autonomous regions and municipalities and including servicemen, 119,636,790 people had a university level education (referring to above college level); 187,985,979 a senior high school level education (including technical secondary); 519,656,445 a junior high school level education; 358,764,003 a primary school level education (various types of school graduates, dropouts and students at school were

included in the above mentioned education group).

Compared with the 5th national census in 2000, the population with a university level education expressed in 100,000 persons rose from 3611 to 8930, the population with a high school education rose from 11,146 to 14,032, the population with a middle school education rose from 33,961 to 38,788, and the population with a primary school education dropped from 35,701 to 26,779.

Among populations in the 31 continental provinces, autonomous regions and municipalities including servicemen, the number of illiterate persons (aged 15 and above who can not read) was 54,656,573, a decrease of 30,413,094. Compared with the fifth national census in 2000 the illiteracy rate dropped from 6.72% to 4.08%.

10.3 Number of Employees in Different Sectors

Table 10-1 Number of Employees in Different Sectors

	(End of year)		Unit: 10 thousands				
Sector	2003	2004	2005	2006	2007	2008	2009
Total	10,492.0	10,575.9	10,850.3	11,160.6	12,024.4	12,192.5	125,73.0
Agriculture, Forestry, Animal Husbandry, Fisheries	459.7	438.1	414.2	402.1	426.3	410.1	373.6
Mining	481.0	491.2	497.6	518.1	535.0	540.4	553.6
Manufacturing	3,250.3	3,096.5	2,960.0	2,898.9	3,465.4	3,434.3	3,491.9
Production & Supply of Electricity, Gas and Water	292.3	294.0	293.7	296.4	303.3	306.5	307.6
Construction	773.5	777.7	854.3	909.8	1,050.8	1,072.6	1,177.5
Transportation, Warehousing, Postal Service	609.7	598.4	579.2	578.7	623.1	627.3	634.3
Information Transmission, Computer and Software	104.0	110.6	116.8	125.0	150.2	159.5	173.8

Wholesale and Retail	592.0	550.9	508.3	485.6	506.9	514.4	520.8
Hotels and Restaurants	159.4	162.6	166.5	169.9	185.8	193.2	202.1
Finance	286.2	286.9	295.0	299.9	389.7	417.6	449.0
Real estate	108.3	120.2	132.7	140.4	166.5	172.7	190.9
Leasing and Business Services	167.6	176.3	198.8	215.0	247.2	274.7	290.5
Scientific Research, Technical services and Geological exploration	206.3	207.6	212.7	219.7	243.4	257.0	272.6
Water Conservancy, Environment and Public Facility Management	163.9	164.6	170.3	175.6	193.5	197.3	205.7
Resident Services and other services	47.5	47.5	47.2	50.0	57.4	56.5	58.8
Education	1,401.7	1,424.5	1,444.7	1,466.3	1,520.9	1,534.0	1,550.4
Health, Social Security and Social Welfare	471.7	476.8	491.4	505.8	542.8	563.6	595.8
Culture, Sports and Entertainment	122.0	117.7	117.0	116.6	125.0	126.0	129.5
Public Management and Social Organizations	1,146.3	1,170.2	1,213.5	1,235.4	1,291.2	1,335.0	1,394.3

10.4 Economic Data

10.4.1 Gross Domestic Product

According to preliminary accounts in 2010, China's Gross Domestic Product (GDP) reached 39,798.3 billion yuan - an increase of 10.3% compared with the end of the previous year, among which, the added value of primary industry was 4,049.7 billion yuan, an increase of 4.3%; the added value of secondary industry was 18,648.1

billion yuan, an increase of 12.2%; the added value of tertiary industry was 17,100.5 billion Yuan, an increase of 9.5%. The added value of primary industry accounted for 10.2% of the GDP, that of secondary industry accounted for 46.8%, and that of tertiary industry accounted for 43.0%.

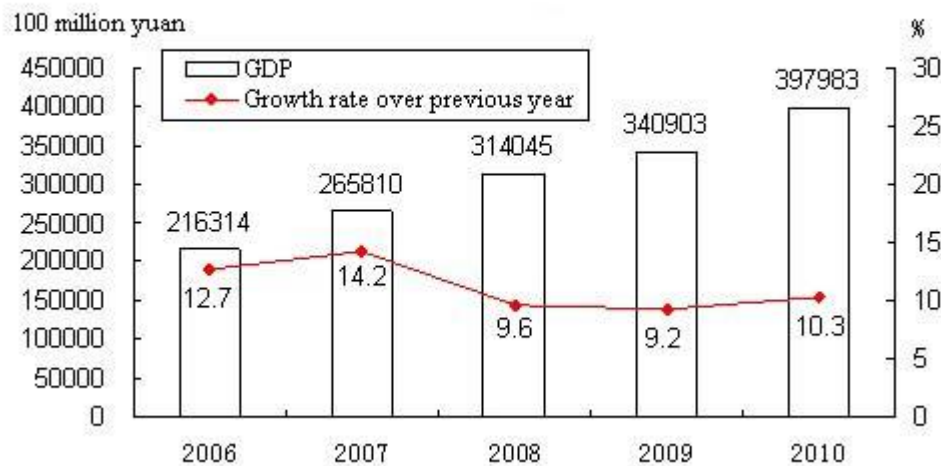


Chart 10-1: 2006—2010 GDP and Rate of Growth

10.4.2 Annual Per Capita Income

(1) In 2010, the annual per capita net income of rural residents was 5,919 Yuan. Deducting price factors, this is an increase of 10.9% compared with the previous year.

(2) The annual per-capita disposable income of urban residents was 19,109 Yuan, Deducting price factors, an increase of 7.8% compared with the previous year is apparent.

(3) The proportion of family expenditure on food out of total family expenditure in rural areas was 41.1%; and 35.7% in urban areas.

(4) Based on the 2010 poverty line of 1,274 yuan in rural areas, the poor rural population by the end of the year was 26.88 million, a decrease of 9.09 million compared with the previous year.

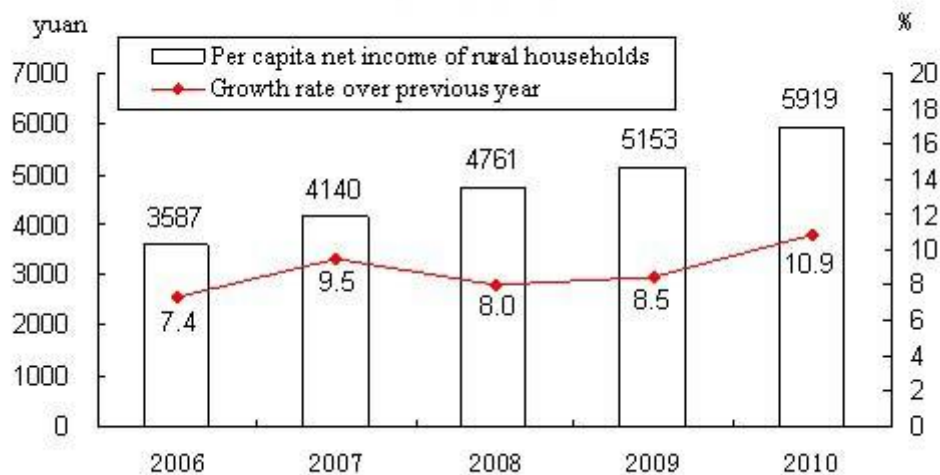


Chart 10-2: 2006—2010 Per Capita Net Income of Rural Residents and Growth Rates

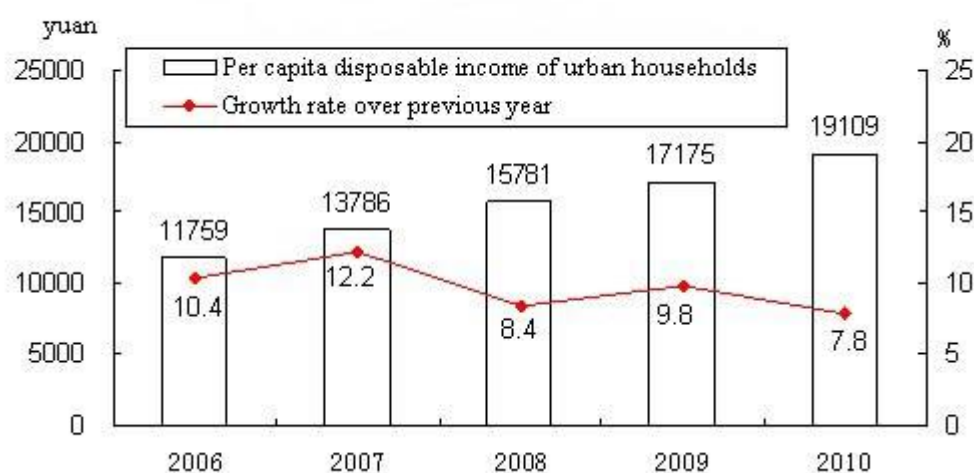


Chart 10-3 2006—2010 Per Capita Disposable Income of Urban Residents and Growth Rates

10.4.3 Proportion of GDP of Different Industries

Table 10-2 Proportion of GDP of Different Industries

(Calculated by price of the respective year)

Unit: %

Year	GDP	Primary industry	Secondary industry		Tertiary industry
			Industry	Construction	
2003	100.0	12.8	40.5	5.5	41.2
2004	100.0	13.4	40.8	5.4	40.4
2005	100.0	12.5	42.0	5.5	40.0

2006	100.0	11.7	43.3	5.6	39.4
2007	100.0	11.1	43.0	5.5	40.4
2008	100.0	11.3	42.9	5.7	40.1
2009	100.0	10.3	46.3		43.4

10.4.4 Composition of Added Value of the Tertiary Industry

Table 10-3: Composition of Added Value of the Tertiary Industry

(Calculated by price of the year)						Unit: %	
Year	Tertiary Industry	Transportation, Warehousing and Postal Service	Wholesale and Retail	Hotels and Restaurants	Banking	Real Estate	Others
2003	100.0	14.1	19.9	5.6	8.9	11.0	40.5
2004	100.0	14.4	19.3	5.7	8.4	11.1	41.1
2005	100.0	14.8	18.4	5.7	8.6	11.2	41.3
2006	100.0	14.5	18.3	5.8	9.1	11.4	40.8
2007	100.0	14.3	18.2	5.3	12.8	11.8	37.6
2008	100.0	13.8	19.2	5.5	14.0	10.6	36.9
2009	100.0	11.6	19.6	4.8	12.0	12.6	39.4

11. OSH Challenges and Tasks in the Twelfth Five-Year Period

11.1 OSH challenges in the Twelfth Five-Year Period

The Twelfth Five-Year period (2011-2015) is an important period of strategic opportunity for China to build an all-around well-off society, a critical juncture in deepening reforms, to open more widely to the outside world, to accelerate the transformation of economic development. It is also a critical period in fundamentally improving work safety situations. OSH work needs not only to solve the long-term accumulation of deep-seated, structural and regional problems, but also to respond

positively to new situations and challenges, which is a very arduous task.

Firstly, the current work safety situation remains grim. China is still in a period prone to multiple work safety accidents and has a large number of accidents occurring nationwide. Pneumoconiosis, other occupational diseases and occupational poisoning still occur.

Secondly, the foundations of work safety remain weak. The industrial layout and structure of some high-risk industries are unreasonable, and have relatively extensive economic growth. Safety responsibilities and measures cannot be implemented in some local governments, departments and units; safety investment is insufficient and there are still many loopholes in the system and management. Backward technology, outdated and aging equipment, and low safety management levels still exist in some enterprises.

Thirdly, the capacity and ability of work safety supervision, inspection, and emergency rescue agencies must be improved urgently. The layout of existing emergency rescue bases is irrational and the rescue forces are still weak. Large, specialized equipment used in major serious accident rescue activities is insufficient. Further research is necessary on mechanism used in major accident hazards, and on both general and key technologies of work safety.

Fourthly, it faces the onerous task of safeguarding people's interests in safety and health at work. With economic development and social progress, societal expectations of work safety are steadily rising. As such, the concept of the Decent Work is being promoted and embraced by the majority of employers, and the demand for stronger work safety supervision, improved work environments, safeguarding the workers' rights and interest in OSH is higher and higher.

11.2 Targets of the Twelfth Five-Year Plan

China's National Economic and Social Development Twelfth Five-Year Plan outlines plans, over the duration of the Twelfth Five-Year Program period, to further implement a system of work safety responsibility, establish and perfect a preventive mechanism for work safety in enterprises; to enhance the construction and capacity of

safety supervision and inspection, and strictly assess safety and responsibility during investigations; to perfect a system of safe technology standards, and be strict and cautious in issuing safety licenses; to implement step by step supervision of major hazard management and corrective efficiency assessment systems, deepen controls on special safety in mines, transportation and other areas; to perfect the coordination and joint action mechanisms, and crack down on illegal production and operations; to prevent major occupational hazards such as dust and highly toxic substances; to carry out research on safety science and technology and equipment research and development; to regulate the development of safety agencies providing professional technical services and strengthen technical assistance and services on safety to small and medium enterprises; to strengthen information, education and training on safety.

In accordance with the Twelfth Five-Year Plan of Work Safety, by the end of 2015, the workplace fatality rate per 100 million Yuan GDP will drop by 36%, and the fatality rate of employees in the factories, mines, commercial and trade sectors will drop by 26%. The capabilities of enterprises with regard to work safety and governmental supervision and inspection will be significantly enhanced, work safety situations in various sectors (areas) will be further improved, safety supervision and inspection systems will be further perfected. Total fatalities of all kinds will decrease by 10% or more, and the death toll in factories, mines, commercial and trade enterprises will decrease by 12.5% or more. The number of major and serious accidents will decrease by 15% or more, the number of major accidents will decrease by 50% or more, the reporting rate on occupational hazards will reach 80% or more, and the OSH goals of the National Occupational Disease Prevention Plan (2009-2015) will be comprehensively achieved. The overall national work safety situation will consistently improve and a solid foundation will be laid for realizing fundamental improvements of the work safety situation by 2020.

11.3 Major Tasks in the Twelfth Five-Year Plan Period

To achieve these goals, the following major tasks must be completed over the Twelfth Five-Year Program period:

(1) To optimize safety systems and enhance the intrinsic safety levels of enterprises and their capabilities in accident prevention. Taking coal and non-coal mines, transportation, hazardous chemicals, building construction and occupational health as key industries, comprehensive investigation activities will be undertaken to eliminate hidden risks, implement and improve work safety systems, strictly formulate work safety standards and improve the level of safety management in enterprises as well as their capability to prevent accidents.

(2) To improve the system of government inspection and social supervision, and enhance capabilities for enforcement and mass prevention and control. To improve the system of supervision and inspection on work safety, build a professional team for safety supervision and inspection, improve working conditions through the enforcement of safety supervision and inspection, improve safety supervision and inspection information technology, develop innovative methods of safety supervision and inspection and strengthen the social supervision in accordance with the law.

(3) To improve systems of support for safety science and technology, and enhance the supporting capability of technical equipment safety. To strengthen research on work safety science and technology, strengthen the construction of professional team safety, improve the support system for work safety technology, extend the application of advanced and applicable technology and equipment, promote safe industrial development and promote the orderly development of professional safety service agencies.

(4) To improve systems of laws, regulations, standards and policies, and enhance the scope and capacity of work safety measures in accordance with laws and regulations. Perfect the work safety legal system, improve technical standards of work safety, standardize methods of enterprise production and operation, and improve the effectiveness of work safety enforcement.

(5) To improve emergency rescue systems, and enhance capability for accident rescue and emergency response. Promote the construction of emergency management institutional mechanisms, speed up the development of emergency rescue teams and improve basic conditions for emergency rescue.

(6) To improve systems of publicity, education and training, enhance the quality of employees' safety and the capabilities of public social self-rescue and mutual aid. To establish a national center of work safety training and examination, and an examination station for safety education and training at state-owned enterprises, strengthen safety training for high-risk industries and operators in small and medium enterprises, improve safety education and training systems for migrant workers in the process of becoming industrial workers, and enhance the awareness of safety in all people, building a positive social environment for safety development.

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Postscript

During the Eleventh Five-Year Plan Period, under the leadership of the Party Central Committee and the State Council, while facing significant changes in the economic and social development environment and a consistently severe work safety situation, all regions, relevant departments, and units stuck to the concept of Safety Development and to the guiding principles of work safety, namely “Safety First, Highlight Prevention and Strive for Comprehensive Management”. This enabled them to plan, deploy, and promote work safety along with economic and social development work. The main objectives and tasks of the Eleventh Five-Year Plan have been accomplished and the target of continuous improvement in the work safety situation has been achieved. These have played an important role in promoting sound and rapid economic development and social harmony and stability.

This report offers a profile of recent developments in China in the field of occupational safety and health. It is intended to contribute to a wider understanding at home and abroad of the efforts being made to strengthen the OSH management system in this country, with a particular focus on hazardous industries. The three main authors have contributed their expertise in writing this report. During the preparation of this report, a number of colleagues have offered guidance, support and assistance. Ms Ann Herbert, Director of the ILO Office for China and Mongolia, wrote the forward for this report and Ms Guan Jinghe, Deputy Director, and Ms Duan Sining, provided assistance. Mr Laurence Phillips proofread the English version. Mr. Zhang Xiaoxue checked the Chinese version and Mr. Li Yunqiang checked the English version. Miss Niu Weiwei and Zhang Yuanyuan translated part of the Chinese report into English. Ms Wang Yu provided valuable research support. The editors of the China Labour and Social Security Publishing House spared no efforts in the design and publication of this report. We sincerely thank them all!

In the process of writing and publishing, some errors and shortcomings may have inadvertently slipped in. We would appreciate receiving your valuable comments on our work.

The Editor

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