

## **<Appendices>**

### **Appendix 1**

### **Environmental Protection Law of the People's Republic of China**

## Environmental Protection Law of the People's Republic of China

(Adopted at the 11th Meeting of the Standing Committee of the Seventh National People's Congress on December 26, 1989, promulgated by Order No. 22 of the President of the People's Republic of China on December 26, 1989, and effective on the date of promulgation)

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### Chapter I General Provisions

Article 1 This Law is formulated for the purpose of protecting and improving people's environment and the ecological environment, preventing and controlling pollution and other public hazards, safeguarding human health and facilitating the development of socialist modernization.

Article 2 "Environment" as used in this Law refers to the total body of all natural elements and artificially transformed natural elements affecting human existence and development, which includes the atmosphere, water, seas, land, minerals, forests, grasslands, wildlife, natural and human remains, nature reserves, historic sites and scenic spots, and urban and rural areas

Article 3 This Law shall apply to the territory of the People's Republic of China and other sea areas under the jurisdiction of the People's Republic of China.

Article 4 The plans for environmental protection formulated by the State must be incorporated into the national economic and social development plans; the State shall adopt economic and technological policies and measures favourable for environmental protection with economic construction and social development.

Article 5 The State shall encourage the development of education in the science of environmental protection, strengthen the study and development of the science and technology of environmental protection, raise the scientific and technological level of environmental protection and popularize scientific knowledge of environmental protection.

Article 6 All units and individuals shall have the obligation to protect the environment and shall have the right to report on or file charges against units or individuals that cause pollution or damage to the environment.

Article 7 The competent department of environmental protection administration under the State Council shall conduct unified supervision and management of the environmental protection work throughout the country.

The competent departments of environmental protection administration of the local people's governments at or above the county level shall conduct unified supervision and management of the environmental protection work within areas under their jurisdiction.

The State administrative department of marine affairs, the harbour superintendency administration, the fisheries administration and fishing harbour superintendency agencies, the environmental protection department of the armed forces and the administrative departments of public security, transportation, railways and civil aviation at various levels shall, in accordance with the provisions of relevant laws, conduct supervision and management of the prevention and control of environmental pollution.

The competent administrative departments of land, minerals, forestry, agriculture and water conservancy of the people's governments at or above the county level shall, in accordance with the provisions of relevant laws, conduct supervision and managements in protecting and improving the environment.

### Chapter II Supervision and Management of the Environment

Article 9 The competent department of environmental protection administration under the State Council shall establish the national standards for environment quality.

The people's governments of provinces, autonomous regions and municipalities directly under the Central Government may establish their local standards for environment quality for items not specified in the national standards for environment

quality and shall report them to the competent department of environmental protection administration under the State Council for the record.

Article 10 The competent department of environmental protection administration under the State Council shall, in accordance with the national standards for environment quality and the country's economic and technological conditions, establish the national standards for the discharge of pollutants.

The people's governments of provinces, autonomous regions and municipalities directly under the Central Government may establish their local standards for the discharge of pollutants for items not specified in the national standards; with regard to items already specified in the national standards, they may set local standards which are more stringent than the national standards and report the same to the competent department of environmental protection administration under the State Council for the record.

Units that discharge pollutants in areas where the local standards for the discharge of pollutants have been established shall observe such local standards.

Article 11 The competent department of environmental protection administration under the State Council shall establish a monitoring system, formulate the monitoring norm and, in conjunction with relevant departments, organize a monitoring network and strengthen the management of environmental monitoring.

The competent departments of environmental protection administration under the State Council and government of provinces, autonomous regions and municipalities directly under the Central Government shall regularly issue bulletins on environmental situations.

Article 12 The competent departments of environmental protection administration of the people's governments at or above the county level shall, in conjunction with relevant departments, make an investigation and assessment of the environmental situation within areas under their jurisdiction, draw up plans for environmental protection which shall, subject to overall balancing by the department of planning, be submitted to the people's government at the same level for approval before implementation.

Article 13 Units constructing projects that cause pollution to the environment must observe the State provisions concerning environmental protection for such construction projects.

The environmental impact statement on a construction project must assess the pollution the project is likely to produce and its impact on the environment and stipulate the preventive and curative measures; the statement shall, after initial examination by the authorities in charge of the construction project, be submitted by specified procedure to the competent department of environmental protection administration for approval. The department of planning shall not ratify the design plan descriptions of the construction project until after the environmental impact statement on the construction project is approved.

Article 14 The competent departments of environmental protection administration of the people's governments at or above the county level or other departments invested by law with power to conduct environmental supervision and management shall be empowered to make on-site inspections of units under their jurisdiction that discharge pollutants. The units being inspected shall truthfully report the situation to them and provide them with the necessary information. The inspecting authorities shall keep confidential the technological know-how and business secrets of the units inspected.

Article 15 Work for the prevention and control of the environmental pollution and damage that involve various administrative areas shall be conducted by the relevant local people's governments through negotiation, or by decision of the people's government at a higher level through mediation.

### **Chapter III Protection and Improvement of the Environment**

Article 16 The local people's governments at various levels shall be responsible for the environment quality of areas under their jurisdiction and take measures to improve the environment quality.

Article 17 The people's governments at various levels shall take measures to protect regions representing various types of natural ecological systems, regions with a natural distribution of rare and endangered wild animals and plants, regions where major sources of water are conserved, geological structures of major scientific and cultural value, famous regions where karst caves and fossil deposits are distributed, traces of glaciers, volcanos and hot springs, traces of human history, and ancient and precious trees. Damage to the above shall be strictly forbidden.

Article 18 Within the scenic spots or historic sites, nature reserves and other zones that need special protection, as designated by the State Council, the relevant competent departments under the State Council, and the people's governments of provinces, autonomous regions and municipalities directly under the Central Government, no industrial production installations that cause environmental pollution shall be built; other installations to be built in these areas must not exceed the prescribed standards for the discharge of pollutants. If the installations that have been built discharge more pollutants than are specified by the prescribed discharge standards, such pollution shall be eliminated and controlled within a prescribed period of time.

Article 19 Measures must be taken to protect the ecological environment while natural resources are being developed or utilized.

Article 20 The people's governments at various levels shall provide better protection for the agricultural environment by preventing and controlling soil pollution, the desertification and alkalization of land into marshes, earth subsidence, tile damage of vegetation, soil erosion, the drying up of sources of water, the extinction of species and the occurrence and development of other ecological imbalances, by extending the scale of a comprehensive prevention and control of plant diseases and insect pest, and by promoting a national application of chemical fertilizers, pesticides and plant growth hormone.

Article 21 The State Council and the people's governments at various levels in coastal areas shall provide better protection for the marine environment. The discharge of pollutants and the dumping of wastes into the seas, the construction of coastal projects, and the exploration and exploitation of offshore oil must be conducted in compliance with legal provisions so as to guard against the pollution and damage of the marine environment.

Article 22 The targets and tasks for protecting and improving the environment shall be defined in urban planning.

Article 23 In urban and rural construction vegetation, waters and the natural landscape shall be protected and attention paid to the construction of gardens, green land and historic sites and scenic spots in the cities in the light of the special features of the local natural environment.

#### **Chapter IV Prevention and Control of Environmental Pollution and Other Public Hazards**

Article 24 Units that cause environmental pollution and other public hazards shall incorporate the work of environmental protection into their plans and establish a responsibility system for environmental protection, and must adopt effective measures to prevent and control the pollution and harms caused to the environment by waste gas, waste water, waste residues, dust, malodorous gases, radioactive substances, noise, vibration and electromagnetic radiation generated in the course of production, construction or other activities.

Article 25 For the technological transformation of newly-built industrial enterprises and existing industrial enterprises, facilities and processes that effect a high rate of the utilization of resources and a low rate of the discharge of pollutants shall be used, along with economical and rational technology for comprehensive utilization of waste materials and the treatment of pollutants.

Article 26 Installations for the prevention and control of pollution at a construction project must be designed, built and commissioned together with the principal part of the project. No permission shall be given for a construction project to be commissioned or used, until its installations for the prevention and control of pollution are examined and considered up to the standard by the competent department of environmental protection administration that examined and approved the environmental impact statement.

Installations for the prevention and control of pollution shall not be dismantled or left idle without authorization. If it is really necessary to dismantle such installations or leave them idle, prior approval shall be obtained from the competent department of environmental protection administration in the locality.

Article 27 Enterprises and institutions discharging pollutants must report to and register with the relevant authorities in accordance with the provisions of the competent department of environmental protection administration under the State Council.

Article 28 Enterprises and institutions discharging pollutants in excess of the prescribed national or local discharge standards shall pay a fee for excessive discharge according to State provisions and shall assume responsibility for eliminating and controlling the pollution. The provisions of the Law on Prevention and Control of Water Pollution shall be complied with where they are applicable.

The income derived from the fee levied for the excessive discharge of pollutants must be used for the prevention and control of pollution and shall not be appropriated for other purposes. The specific measures thereof shall be prescribed by the State Council.

Article 29 If an enterprise or institution has caused severe environmental pollution, it shall be required to eliminate and control the pollution within a certain period of time.

For enterprises and institutions directly under the jurisdiction of the Central Government or the people's government of a province, an autonomous region, or a municipality directly under the Central Government, the decision on a deadline for the elimination or control of pollution shall be made by the people's government of the province, autonomous region and the municipality directly under the Central Government. For enterprises and institutions under the jurisdiction of a people's government at or below the city or county level, such decision shall be made by the people's government of the city or county. Such enterprises and institutions shall accomplish the elimination or control of pollution within the specified period of time.

Article 30 A ban shall be imposed on the importation of any technology or facility that fails to meet the

requirements specified in the regulations of our country concerning environmental protection.

Article 31 Any unit that, as a result of an accident or any other exigency, has caused or threatens to cause an accident of pollution, must promptly take measures to prevent and control the pollution hazards, make the situation known to such units and inhabitants as are likely to be endangered by such hazards, report the case to the competent department of environmental protection administration of the locality and the departments concerned and accept their investigation and decision.

Enterprises and institutions that are likely to cause severe pollution accidents shall adopt measures for effective prevention.

Article 32 If the safety of the lives and property of inhabitants is endangered by severe environmental pollution, the competent department of environmental protection administration of the local people's government at or above the county level must promptly report to the local people's government. The people's government concerned shall take effective measures to remove or alleviate the hazard.

Article 33 The production, storage, transportation, sale and use of toxic chemicals and materials containing radioactive substances must comply with the relevant State provisions so as to prevent environmental pollution.

Article 34 No unit shall be permitted to transfer a production facility that causes severe pollution for use by a unit that is unable to prevent and control pollution.

## Chapter V Legal Liability

Article 35 Any violator of this Law shall, according to the circumstances of the case, be warned or fined by the competent department of environmental protection administration or another department invested by law with power to conduct environmental supervision and management for any of the following acts;

(1) refusing an on-site inspection by the competent department of environmental protection administration or another department invested by law with power to conduct environmental supervision and management, or resorting to trickery and fraud while undergoing inspection;

(2) refusing to report or submitting a false report on items for which declaration is required by the competent department of environmental protection administration under the State Council;

(3) failing to pay, as provided for by the State, the fee for the excessive discharge of pollutants;

(4) importing technology or a facility that fails to meet the requirements specified in the State provisions concerning environmental protection; or

(5) transferring a production facility that causes severe pollution for use by a unit that is unable to prevent and control pollution.

Article 36 When a construction project is commissioned or put to use in circumstances where facilities for the prevention and control of pollution either have not been completed or fail to meet the requirements specified in State provisions, the competent department of environmental protection administration responsible for the approval of the environmental impact statement on the construction project shall order the suspension of its operations or use and may concurrently impose a fine.

Article 37 A unit which dismantles or leaves idle the installations for the prevention and control of pollution without prior approval by the competent department of environmental protection administration, thereby discharging pollutants in excess of the prescribed discharge standards, shall be ordered by the competent department of environmental protection administration to set up the installations or put them to use again, and shall concurrently be fined.

Article 38 An enterprise or institution which violates this Law, thereby causing an environmental pollution accident, shall be fined by the competent department of environmental protection administration or another department invested by law with power to conduct environmental supervision and management in accordance with the consequent damage; in a serious case, the persons responsible shall be subject to administrative sanction by the unit to which they belong or by the competent department of the government.

Article 39 An enterprise or institution that has failed to eliminate or control pollution by the deadline as required shall, as provided for by the State, pay a fee for excessive discharge; in addition, a fine may be imposed on it on the basis of the damage incurred, or the enterprise or institution may be ordered to suspend its operations or close down.

The fine as specified in the preceding paragraph shall be decided by the competent department of environmental protection administration. An order for the suspension of operations or shut-down of an enterprise or institution shall be issued by the people's government that set the deadline for the elimination or control of pollution. An order for the suspension of operations or shut-down of an enterprise or institution directly under the jurisdiction of the Central Government shall be submitted to and approved by the State Council.

Article 40 A party refusing to accept the decision on administrative sanction may, within 15 days of receiving the notification on such a decision, apply for reconsideration to the department next higher to the authorities that imposed the sanction; if the party refuses to accept the decision of reconsideration, it may, within 15 days of receiving the reconsideration decision, bring a suit before a People's Court. A party may also bring a suit directly before a People's Court within 15 days

of receiving the notification on the sanction. If, upon the expiration of this period, the party has not applied for reconsideration or has neither brought a suit before a People's Court nor complied with the sanction, the authorities that imposed the sanction may apply to the People's Court for compulsory enforcement.

Article 41 A unit that has caused an environmental pollution hazard shall have the obligation to eliminate it and make compensation to the unit or individual that suffered direct losses.

A dispute over the liability to make compensation or the amount of compensation may, at the request of the parties, be settled by the competent department of environmental protection administration or another department invested by law with power to conduct environmental supervision and management. If a party refuses to accept the decision on the settlement, it may bring a suit before a People's Court. The party may also directly bring a suit before the People's Court.

If environmental pollution losses result solely from irresistible natural disasters which cannot be averted even after the prompt adoption of reasonable measures, the party concerned shall be exempted from liability.

Article 42 The limitation period for prosecution with respect to compensation for environmental pollution losses shall be three years, counted from the time when the party becomes aware of or should become aware of the pollution losses.

Article 43 If a violation of this Law causes a serious environmental pollution accident, leading to the grave consequences of heavy losses of public or private property or human injuries or deaths of persons, the persons directly responsible for such an accident shall be investigated for criminal responsibility according to law.

Article 44 Whoever, in violation of this Law, causes damage to natural resources like land, forests, grasslands, water, minerals, fish, wild animals and wild plants shall bear legal liability in accordance with the provisions of relevant laws.

Article 45 Any person conducting supervision and management of environmental protection who abuses his power, neglects his duty or engages in malpractices for personal gains shall be given administrative sanction by the unit to which he belongs or the competent higher authorities; if his act constitutes a crime, he shall be investigated for criminal responsibility according to law.

#### **Chapter VI Supplementary Provisions**

Article 46 If an international treaty regarding environmental protection concluded or acceded to by the People's Republic of China contains provisions differing from those contained in the laws of the People's Republic of China, the provisions of the international treaty shall apply, unless the provisions are ones on which the People's Republic of China has announced reservations.

Article 47 This Law shall enter into force on the date of promulgation. The Environmental Protection Law of the People's Republic of China (for Trial Implementation) shall be abrogated therefrom.

**Appendix 2**  
**Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution**

## **Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution**

(Adopted at the 22nd Meeting of the Standing Committee of the Sixth National People's Congress on September 5, 1987 and amended according to the Decision on amending the Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution adopted at the 15th Meeting of the Standing Committee of the Eighth National People's Congress on August 29, 1995 and revised at the 15th Meeting of the Standing Committee of the Ninth National People's Congress on April 29, 2000)

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### Chapter I General Provisions

Article 1 This Law is formulated for the purpose of preventing and controlling atmospheric pollution, protecting and improving people's environment and the ecological environment, safeguarding human health, and promoting the sustainable development of the economy and society.

Article 2 The State Council and the local people's governments at various levels shall incorporate the protection of the atmospheric environment into the national economic and social development plans, make rational plans for the geographical distribution of industry, improve scientific research in the prevention and control of atmospheric pollution and adopt measures to prevent and control atmospheric pollution, in order to protect and improve the atmospheric environment.

Article 3 The State takes measures to control or gradually reduce, in a planned way, the total amount of the major atmospheric pollutants discharged in different areas.

The local people's governments at various levels shall be responsible for the quality of the atmospheric environment within the areas under their jurisdiction, making plans and taking measures to ensure that the quality of the atmospheric environment within the said areas meet the standards.

Article 4 The administrative departments for environmental protection under the people's governments at or above the county level shall exercise unified supervision over the prevention and control of atmospheric pollution.

The administrative departments for public security, transportation, railways and fishery at various levels shall perform their respective functions in conducting supervision over atmospheric pollution caused by motor vehicles and vessels.

The relevant competent departments under the people's governments at or above the county level shall, within the limits of their respective functions conduct supervision over the prevention and control of atmospheric pollution.

Article 5 All units and individuals shall have the obligation to protect the atmospheric environment and shall have the right to inform or lodge charges against units or individuals that cause pollution to the atmospheric environment.

Article 6 The administrative department for environmental protection under the State Council shall establish the national standards for atmospheric environment quality. The people's governments of provinces, autonomous regions and municipalities directly under the Central Government may establish their local standards for items not specified in the national standards for atmospheric environment quality and report the same to the administrative department for environmental protection under the State Council for the record.

Article 7 The administrative department for environmental protection under the State Council shall, on the basis of the national standards for atmospheric environment quality and the country's economic and technological conditions, establish the national norm for the discharge of atmospheric pollutants.

The people's governments of provinces, autonomous regions and municipalities directly under the Central Government may establish their local discharge norms for items not specified in the national norm for the discharge of atmospheric pollutants; with regard to items already specified in the national norms for the discharge of atmospheric pollutants, they may set local discharge norms which are more stringent than the national norm and report the same to the administrative department for environmental protection under the State Council for the record.

Where the local norms for the discharge of atmospheric pollutants by motor vehicles and vessels established by the people's governments of provinces, autonomous regions and municipalities directly under the Central Government are more stringent than the national norm, they shall be subject to approval by the State Council.

Units that discharge atmospheric pollutants in areas where local discharge norms have been established shall do so in



conformity with such norms.

Article 8 The State adopts economic and technological policies and measures to facilitate the prevention and control of atmospheric pollution and the relevant multi-purpose utilization.

Units or individuals that have made outstanding achievements in the prevention and control of atmospheric pollution or in the protection and improvement of the atmospheric environment shall be rewarded by the people's governments at various levels.

Article 9 The State encourages and supports scientific and technological research into the prevention and control of atmospheric pollution, promotes the wide use of advanced and applicable technologies for such prevention and control; encourages and supports the development and utilization of clean energy like the solar energy, wind energy and water energy. The State encourages and supports the development of the environmental protection industries.

Article 10 The people's governments at various levels shall redouble their efforts in afforestation, grass planting, urban and rural greening, and take effective measures that are suited to local conditions to prevent and control desertification so as to improve the atmospheric environment.

## **Chapter II Supervision over the Prevention and Control of Atmospheric Pollution**

Article 11 Projects which discharge atmospheric pollutants shall be built, expanded or rebuilt in compliance with the State regulations requiring environmental protection in respect of such projects.

In the statement regarding the environmental impact of a construction project, the atmospheric pollution the project is likely to produce and its impact on the ecological environment shall be assessed and measures for its prevention and control be specified; and the statement shall, in accordance with the specified procedures, be submitted to the administrative department for environmental protection for examination and approval.

Before a construction project is put into operation or to use, its facilities for the prevention and control of atmospheric pollution shall be subject to inspection and acceptance by the administrative department for environmental protection; no construction projects that fail to meet the requirements specified in the State regulations requiring environmental protection in respect of such projects shall be permitted to be put into operation or to use.

Article 12 Units that discharge atmospheric pollutants shall, pursuant to the regulations laid down by the administrative department for environmental protection under the State Council, report to the local administrative department for environmental protection the facilities installed for discharging and treating pollutants and the categories, quantities and density of the pollutants discharged under regular operation conditions and submit to the same department the relevant technical data concerning the prevention and control of atmospheric pollution.

The units that discharge pollutants, as mentioned in the preceding paragraph, shall without delay report on any substantial change in the categories, quantities or density of the atmospheric pollutants discharged. They shall keep their facilities for treating atmospheric pollutants in regular operation; where the said facilities are to be dismantled or left idle, the matter shall be reported to the local administrative department for environmental protection under the people's government at or above the county level for approval in advance.

Article 13 No units may discharge atmospheric pollutants in excess of the density specified by the State or by local authorities.

Article 14 The State institutes a system under which fees are charged for discharge of atmospheric pollutants on the basis of the categories and quantities of the pollutants discharged and establishes reasonable rates for such fees according to the need for improved prevention and control of atmospheric pollution and the country's economic and technological conditions.

The rates fixed by the State shall be applied in collecting the fees for discharge of pollutants, specific measures and the procedures for their implementation shall be prescribed by the State Council.

All the fees collected for discharge of pollutants shall be turned over to the Treasury and shall be used for the prevention and control of atmospheric pollution as prescribed by the State Council and may not be used for other purposes. And the auditing authority shall, in accordance with law, exercise supervision over their use through auditing.

Article 15 With regard to the areas, where the specified standards for the quality of the atmospheric environment are not met, and the acid rain control areas and the sulfur dioxide pollution control areas designated as such with the approval of the State Council, the State Council and the people's government of provinces, autonomous regions and municipalities directly under the Central Government may delimit them as the areas where the total amount of the main atmospheric pollutants discharged is kept under control. The specific measures for such control shall be prescribed by the State Council.

The relevant local people's governments in the areas where the total amount of the atmospheric pollutants discharged is kept under control shall, in compliance with the requirements and procedures prescribed by the State Council and in line with the principles of openness, fairness and impartiality, check and fix the total amounts of the main atmospheric pollutants discharged by enterprises and institutions and issue them permits for discharge for such pollutants.

The enterprises and institutions that undertake to control their total amounts of atmospheric pollutants discharged shall discharge pollutants in conformity with the checked and fixed total amounts of the main atmospheric pollutants to be discharged and the requirements in respect of their discharge prescribed by the permits.

Article 16 Within the scenic or historic sites, nature reserves, the areas adjacent to historical or cultural sites under protection and other zones that need special protection, delimited as such by the State Council or the people's governments of provinces, autonomous regions and municipalities directly under the Central Government, no industrial production installations that cause environmental pollution shall be built; the pollutants discharged by other installations to be built in these areas may not exceed the norms prescribed. Enterprises and institutions which, before the enforcement of this Law, have built installations that discharge pollutants in excess of the specified norms shall, in accordance with the provisions of Article 48 of this Law, put such pollution under control within a time limit.

Article 17 The State Council shall designate key cities for prevention and control of atmospheric pollution in accordance with the overall plan for urban development, the planned target for environmental protection and the quality of the atmospheric environment of cities.

Municipalities directly under the Central Government, provincial capitals, open coastal cities and key tourist cities shall be included in the list of key cities for prevention and control of atmospheric pollution.

Key cities for prevention and control of atmospheric pollution that fail to meet the standards for the quality of the atmospheric environment shall be required to do so within the time limit specified by the State Council or the administrative department for environmental under the State Council. The people's governments of such cities shall make plans to meet the standards within the time limit and may, under the authorization of the State Council or on the basis of its regulations, adopt more stringent measures to fulfill such plans on schedule.

Article 18 The administrative department for environmental protection under the State Council together with the relevant departments under the State Council may, in light of the meteorological, topographical, soil and other natural conditions, delimit the areas where acid rain has occurred or will probably occur and areas that are seriously polluted by sulfur dioxide as acid rain control areas or sulfur dioxide pollution control areas, subject to approval by the State Council.

Article 19 Enterprises shall give priority to the adoption of clean production techniques that are instrumental to high-efficient use of energy and reduced discharge of pollutants so as to decrease the generation of atmospheric pollutants.

The State practices an elimination system for the outdated production techniques and equipment which cause serious pollution to the atmospheric environment.

The competent department for comprehensive economic and trade affairs under the State Council shall, in conjunction with the relevant departments under the State Council, publish a catalog of the techniques which cause serious pollution to the atmospheric environment and the use of which shall be prohibited within a time limit, and a catalog of the equipment which causes serious pollution to the atmospheric environment and the production, sale, importation and use of which shall be prohibited within a time limit.

Producers, sellers, importers or users shall, within the time limit specified by the competent department for comprehensive economic and trade affairs under the State Council in conjunction with the relevant departments under the State Council, discontinue the production, sale, importation or use of the equipment listed in the catalog as mentioned in the preceding paragraph. Users of the production techniques listed in the catalog mentioned in the preceding paragraph shall, within the time limit specified by the competent department for comprehensive economic and trade affairs under the State Council in conjunction with the relevant departments under the State Council, stop using such techniques.

No equipment eliminated in accordance with the provisions of the preceding two paragraphs may be transferred to another for use.

Article 20 Any unit that, as a result of an accident or any other exigency, discharges or leaks toxic or harmful gas or radioactive substances, thereby causing or threatening to cause an accident of atmospheric pollution and jeopardize human health, shall promptly take emergency measures to prevent and control the atmospheric pollution hazards, make the situation known to such units and inhabitants as are likely to be endangered by the atmospheric pollution hazards, report the case to the local administrative department for environmental protection and accept its investigation and disposal.

Under the urgent circumstances of a severe atmospheric pollution that jeopardizes human health and safety, the local people's government shall make the matter known to the local inhabitants without delay and take compulsory emergency measures, including ordering the pollutant discharging unit concerned to stop discharging pollutant.

Article 21 The administrative departments for environmental protections and other supervisory departments shall have the power to make on-site inspections of the units under their jurisdiction that discharge pollutants. The units under inspection shall truthfully report the situation to them and provide them with the necessary data. The inspecting departments shall have the obligation to keep confidential the technological know-how and business secrets of the units inspected.

Article 22 The administrative department for environmental protection under the State Council shall set up a monitoring system for atmospheric pollution, organize a monitoring network and work out unified monitoring measures.

Article 23 The administrative departments for environmental protection under the people's governments of large and medium-sized cities shall regularly publish bulletins on the quality of the atmospheric environment and gradually introduce the practice of forecasting the quality of the atmospheric environment.

A bulletin on the quality of the atmospheric environment shall include such contents as the characteristics of the urban atmospheric pollution, the types of the main pollutants and the degree of the harm caused by the pollution.

### Chapter III Prevention and Control of Atmospheric Pollution by the Burning of Coal

Article 24 The State promotes the dressing of coal by washing to reduce the sulfur and ash in coal, and restricts the mining of high-sulfur or high-ash coal. If the coal mined from a newly-built coal mine is of high-sulfur or high-ash, supporting facilities for the dressing of coal by washing shall be installed to keep the sulfur and ash in coal within the limits prescribed.

If the coal mined from an established coal mine is of high-sulfur or high-ash, supporting facilities for the dressing of coal by washing shall, in accordance with the plan approved by the State Council, be installed within a time limit.

It is prohibited to mine the coal containing toxic or harmful substances, such as radioactive and arsenic substances, that exceed the limits prescribed.

Article 25 The relevant departments under the State Council and the local people's governments at various levels shall adopt measures to improve the mix of urban energy and popularize the production and utilization of clean energy.

The people's governments of key cities for prevention and control of atmospheric pollution may, within the regions under their respective jurisdiction, delimit areas as ones where sale and use of the seriously polluting fuels defined by the administrative department for environmental protection under the State Council are prohibited. The units and individuals in such areas, within the time limit prescribed by the local people's governments, stop using such seriously polluting fuels and shall instead use natural gas, liquefied petroleum gas, electricity or other clean energy.

Article 26 The State adopts economic and technical policies and measures conducive to the clean utilization of coal, encourages and supports the use of fine coal of low-sulfur or low-ash, and encourages and supports the development and popularization of the technology of coal cleaning.

Article 27 The competent department concerned under the State Council shall, pursuant to the norms for boiler discharge of atmospheric pollutants prescribed by the State, stipulate corresponding requirements in the boiler quality standards; no boilers that do not meet the prescribed requirements shall be manufactured, sold or imported.

Article 28 Urban construction shall be conducted on the basis of over-all planning. In areas of coal heating, unified provision of heat sources shall be practiced and central heating developed. In areas covered by central heating pipelines or networks, no coal heating boilers may be installed.

Article 29 People's governments of large or medium-sized cities shall make plans for catering service enterprises to start the use of clean energy such as natural gas, liquefied petroleum gas and electricity within a time limit.

For other users of domestic cooking ranges in urban areas of large or medium-sized cities not delimited as areas where the use of seriously polluting fuels is prohibited, they shall, within a time limit, start to use sulfur-fixed briquette of coal or other clean energy.

Article 30 Where heat-engine plants and other large or medium-sized enterprises that discharge sulfur dioxide are built or expanded, if the prescribed norms for pollutants discharge or the control quotas for total amounts of discharge are exceeded, supporting facilities for desulphurization and dust removal shall be installed or other measures for control of the discharge of sulfur dioxide or for dust removal adopted.

In the acid rain control areas or sulfur dioxide pollution control areas, if established enterprises discharge atmospheric pollutants in excess of the norms for pollutants discharge, they shall, in accordance with the provisions of Article 48 of this Law, be required to keep the discharge under control within a time limit.

The State encourages enterprises to adopt advanced technology for desulphurization and dust removal.

Enterprises shall adopt measures to control the nitrogen oxide generated by the burning of fuel.

Article 31 When coal, gangue, coal cinder, coal ashes, sandstone lime soil or other material is stored in densely inhabited areas, fire and dust prevention measures shall be taken in order to prevent atmospheric pollution.

### Chapter IV Prevention and Control of Environmental Pollution and Other Public Hazards

Article 24 Units that cause environmental pollution and other public hazards shall incorporate the work of environmental protection into their plans and establish a responsibility system for environmental protection, and must adopt effective measures to prevent and control the pollution and harms caused to the environment by waste gas, waste water, waste residues, dust, malodorous gases, radioactive substances, noise, vibration and electromagnetic radiation generated in the course of production, construction or other activities.

Article 25 For the technological transformation of newly-built industrial enterprises and existing industrial enterprises, facilities and processes that effect a high rate of the utilization of resources and a low rate of the discharge of pollutants shall be used, along with economical and rational technology for comprehensive utilization of waste materials and the treatment of pollutants.

Article 26 Installations for the prevention and control of pollution at a construction project must be designed, built and commissioned together with the principal part of the project. No permission shall be given for a construction project to be commissioned or used, until its installations for the prevention and control of pollution are examined and considered up to the standard by the competent department of environmental protection administration that examined and approved the

environmental impact statement.

Installations for the prevention and control of pollution shall not be dismantled or left idle without authorization. If it is really necessary to dismantle such installations or leave them idle, prior approval shall be obtained from the competent department of environmental protection administration in the locality.

Article 27 Enterprises and institutions discharging pollutants must report to and register with the relevant authorities in accordance with the provisions of the competent department of environmental protection administration under the State Council.

Article 28 Enterprises and institutions discharging pollutants in excess of the prescribed national or local discharge standards shall pay a fee for excessive discharge according to State provisions and shall assume responsibility for eliminating and controlling the pollution. The provisions of the Law on Prevention and Control of Water Pollution shall be complied with where they are applicable.

The income derived from the fee levied for the excessive discharge of pollutants must be used for the prevention and control of pollution and shall not be appropriated for other purposes. The specific measures thereof shall be prescribed by the State Council.

Article 29 If an enterprise or institution has caused severe environmental pollution, it shall be required to eliminate and control the pollution within a certain period of time.

For enterprises and institutions directly under the jurisdiction of the Central Government or the people's government of a province, an autonomous region, or a municipality directly under the Central Government, the decision on a deadline for the elimination or control of pollution shall be made by the people's government of the province, autonomous region and the municipality directly under the Central Government. For enterprises and institutions under the jurisdiction of a people's government at or below the city or county level, such decision shall be made by the people's government of the city or county. Such enterprises and institutions shall accomplish the elimination or control of pollution within the specified period of time.

Article 30 A ban shall be imposed on the importation of any technology or facility that fails to meet the requirements specified in the regulations of our country concerning environmental protection.

Article 31 Any unit that, as a result of an accident or any other exigency, has caused or threatens to cause an accident of pollution, must promptly take measures to prevent and control the pollution hazards, make the situation known to such units and inhabitants as are likely to be endangered by such hazards, report the case to the competent department of environmental protection administration of the locality and the departments concerned and accept their investigation and decision.

Enterprises and institutions that are likely to cause severe pollution accidents shall adopt measures for effective prevention.

Article 32 If the safety of the lives and property of inhabitants is endangered by severe environmental pollution, the competent department of environmental protection administration of the local people's government at or above the county level must promptly report to the local people's government. The people's government concerned shall take effective measures to remove or alleviate the hazard.

Article 33 The production, storage, transportation, sale and use of toxic chemicals and materials containing radioactive substances must comply with the relevant State provisions so as to prevent environmental pollution.

Article 34 No unit shall be permitted to transfer a production facility that causes severe pollution for use by a unit that is unable to prevent and control pollution.

## Chapter V Legal Liability

Article 35 Any violator of this Law shall, according to the circumstances of the case, be warned or fined by the competent department of environmental protection administration or another department invested by law with power to conduct environmental supervision and management for any of the following acts;

(1) refusing an on-site inspection by the competent department of environmental protection administration or another department invested by law with power to conduct environmental supervision and management, or resorting to trickery and fraud while undergoing inspection;

(2) refusing to report or submitting a false report on items for which declaration is required by the competent department of environmental protection administration under the State Council;

(3) failing to pay, as provided for by the State, the fee for the excessive discharge of pollutants;

(4) importing technology or a facility that fails to meet the requirements specified in the State provisions concerning environmental protection; or

(5) transferring a production facility that causes severe pollution for use by a unit that is unable to prevent and control pollution.

Article 36 When a construction project is commissioned or put to use in circumstances where facilities for the prevention and control of pollution either have not been completed or fail to meet the requirements specified in State

provisions, the competent department of environmental protection administration responsible for the approval of the environmental impact statement on the construction project shall order the suspension of its operations or use and may concurrently impose a fine.

Article 37 A unit which dismantles or leaves idle the installations for the prevention and control of pollution without prior approval by the competent department of environmental protection administration, thereby discharging pollutants in excess of the prescribed discharge standards, shall be ordered by the competent department of environmental protection administration to set up the installations or put them to use again, and shall concurrently be fined.

Article 38 An enterprise or institution which violates this Law, thereby causing an environmental pollution accident, shall be fined by the competent department of environmental protection administration or another department invested by law with power to conduct environmental supervision and management in accordance with the consequent damage; in a serious case, the persons responsible shall be subject to administrative sanction by the unit to which they belong or by the competent department of the government.

Article 39 An enterprise or institution that has failed to eliminate or control pollution by the deadline as required shall, as provided for by the State, pay a fee for excessive discharge; in addition, a fine may be imposed on it on the basis of the damage incurred, or the enterprise or institution may be ordered to suspend its operations or close down.

The fine as specified in the preceding paragraph shall be decided by the competent department of environmental protection administration. An order for the suspension of operations or shut-down of an enterprise or institution shall be issued by the people's government that set the deadline for the elimination or control of pollution. An order for the suspension of operations or shut-down of an enterprise or institution directly under the jurisdiction of the Central Government shall be submitted to and approved by the State Council.

Article 40 A party refusing to accept the decision on administrative sanction may, within 15 days of receiving the notification on such a decision, apply for reconsideration to the department next higher to the authorities that imposed the sanction; if the party refuses to accept the decision of reconsideration, it may, within 15 days of receiving the reconsideration decision, bring a suit before a People's Court. A party may also bring a suit directly before a People's Court within 15 days of receiving the notification on the sanction. If, upon the expiration of this period, the party has not applied for reconsideration or has neither brought a suit before a People's Court nor complied with the sanction, the authorities that imposed the sanction may apply to the People's Court for compulsory enforcement.

Article 41 A unit that has caused an environmental pollution hazard shall have the obligation to eliminate it and make compensation to the unit or individual that suffered direct losses.

A dispute over the liability to make compensation or the amount of compensation may, at the request of the parties, be settled by the competent department of environmental protection administration or another department invested by law with power to conduct environmental supervision and management. If a party refuses to accept the decision on the settlement, it may bring a suit before a People's Court. The party may also directly bring a suit before the People's Court.

If environmental pollution losses result solely from irresistible natural disasters which cannot be averted even after the prompt adoption of reasonable measures, the party concerned shall be exempted from liability.

Article 42 The limitation period for prosecution with respect to compensation for environmental pollution losses shall be three years, counted from the time when the party becomes aware of or should become aware of the pollution losses.

Article 43 If a violation of this Law causes a serious environmental pollution accident, leading to the grave consequences of heavy losses of public or private property or human injuries or deaths of persons, the persons directly responsible for such an accident shall be investigated for criminal responsibility according to law.

Article 44 Whoever, in violation of this Law, causes damage to natural resources like land, forests, grasslands, water, minerals, fish, wild animals and wild plants shall bear legal liability in accordance with the provisions of relevant laws.

Article 45 Any person conducting supervision and management of environmental protection who abuses his power, neglects his duty or engages in malpractices for personal gains shall be given administrative sanction by the unit to which he belongs or the competent higher authorities; if his act constitutes a crime, he shall be investigated for criminal responsibility according to law.

## Chapter VI Supplementary Provisions

Article 46 If an international treaty regarding environmental protection concluded or acceded to by the People's Republic of China contains provisions differing from those contained in the laws of the People's Republic of China, the provisions of the international treaty shall apply, unless the provisions are ones on which the People's Republic of China has announced reservations.

Article 47 This Law shall enter into force on the date of promulgation. The Environmental Protection Law of the People's Republic of China (for Trial Implementation) shall be abrogated therefrom.



**Appendix 3**  
**Law of the People's Republic of China on Prevention and Control of Water Pollution**

# Law of the People's Republic of China on Prevention and Control of Water Pollution

## CHAPTER I GENERAL PROVISIONS

Article 1 This Law is enacted for the purposes of preventing and controlling water pollution, protecting and improving the environment, safeguarding human health, ensuring effective utilization of water resources and promoting progress of the socialist modernization drive.

Article 2 This Law applies to prevention and control of pollution of rivers, lakes, canals, irrigation channels, reservoirs and other surface water bodies and of ground water bodies within the territory of the People's Republic of China. This Law is not applicable to prevention and control of marine pollution, which is provided for by a separate law.

Article 3 Relevant departments under the State Council and local people's governments at various levels must incorporate protection of the water environment into their plans and adopt ways and measures to prevent and control water pollution.

Article 4 The environmental protection departments of the people's governments at various levels shall be the organs exercising unified supervision and management of prevention and control of water pollution.

Navigation administration offices of the communications departments at various levels shall be the organs exercising supervision and management of pollution caused by ships.

Water conservancy administration departments, public health administration departments, geological and mining departments, municipal administration departments, and water sources protection agencies for major rivers of the people's governments at various levels shall, through performing their respective functions and in conjunction with environmental protection departments, exercise supervision over and management of prevention and control of water pollution.

Article 5 All units and individuals shall have the duty to protect the water environment and the right to supervise and inform against any pollution or damage to the water environment.

Any unit or individual that has suffered damage directly from a water pollution hazard shall have the right to demand elimination of the hazard and compensation for the damage by the polluter.

## CHAPTER II ESTABLISHMENT OF STANDARDS FOR WATER ENVIRONMENT QUALITY AND FOR DISCHARGE OF WATER POLLUTANTS

Article 6 The environmental protection department under the State Council shall establish the national standards for water environment quality.

The people's governments of provinces, autonomous regions and municipalities directly under the Central Government may establish their own local standards for the items that are not specified in the national standards for water environment quality and report the same to the environmental protection department under the State Council for the record.

Article 7 The environmental protection department under the State Council shall, in line with the national standards for water environment quality and the country's economic and technological conditions, establish the national standards for discharge of water pollutants.

The people's governments of provinces, autonomous regions and municipalities directly under the Central Government may establish their own local standards for the items that are not specified in the national standards for discharge of water pollutants. With regard to the items that are already specified in the national standards for discharge of water pollutants, they may establish more stringent local standards than the national standards. All local standards must be reported to the environmental protection department under the State Council for the record.

Those who discharge pollutants into any water body for which local standards have been established shall observe such local standards.

Article 8 The environmental protection department under the State Council and the people's governments of provinces, autonomous regions and municipalities directly under the Central Government shall, in line with the requirements of prevention and control of water pollution and the country's economic and technological conditions, amend in due time their standards for water environment quality and for discharge of water pollutants.

## CHAPTER III SUPERVISION AND MANAGEMENT OF PREVENTION AND CONTROL OF

Article 9 Relevant departments under the State Council and local people's governments at various levels shall, when developing, utilizing, regulating and allocating water resources, make integrated plans for maintaining proper river flows, proper water levels of lakes, reservoirs and proper ground water tables, in order to retain the natural purification capacity of water bodies.

Article 10 To prevent and control water pollution, it is necessary to make unified plans on the basis of river basins or regions. Plans for preventing and controlling water pollution of basins of major rivers, designated as such by the State, shall be formulated by the environmental protection department under the State Council, together with the competent department



of planning, water conservancy administration department and other departments concerned as well as the people's governments of relevant provinces, autonomous regions and municipalities directly under the Central Government, and shall be submitted to the State Council for approval.

Plans for preventing and controlling water pollution of basins of other rivers that run across provinces or counties shall be formulated, in line with the plans for preventing and controlling water pollution of basins of major rivers, designated as such by the State, and in light of actual local conditions, by the environmental protection departments of the people's governments at or above the provincial level, together with the water conservancy administration departments and other departments concerned as well as the relevant local people's governments, and shall be submitted to the State Council or the people's governments at the provincial level for approval. Plans for preventing and controlling water pollution of basins of other rivers that run across counties but not provinces shall be submitted by the people's government of the province concerned to the State Council for the record.

Plans for preventing and controlling water pollution, once approved, shall serve as the essential basis for prevention and control of water pollution, and any modification of such plans shall be subject to approval of the original departments that approved the plans.

Local people's governments at or above the county level shall, in accordance with the approved plans for preventing and controlling water pollution of river basins, organize people to work out plans for preventing and controlling water pollution for their own administrative regions and incorporate such plans in the long-term, medium-term and annual plans of their administrative regions for national economic and social development.

Article 11 Relevant departments under the State Council and local people's governments at various levels shall make rational plans for the geographical distribution of industries, subject those enterprises that cause water pollution to rectification and technological updating, adopt comprehensive prevention and control measures, increase the rate of water recycling, utilize resources rationally and reduce discharge of waste water and pollutants.

Article 12 The people's governments at or above the county level may delineate protection zones for water bodies in scenic or historic sites, major fishery water bodies and other water bodies of special economic or cultural value, and take measures to ensure that the water quality in those protection zones complies with the standards for the designated uses.

Article 13 New construction projects and expansion or reconstruction projects and other installations on water that directly or indirectly discharge pollutants to water bodies shall be subject to relevant State regulations governing environmental protection for such projects.

In the environmental impact statement of a construction project an assessment shall be made regarding the water pollution hazards the project is likely to produce and its impact on the ecosystem, and measures for their prevention and control shall be prescribed. The statement shall be submitted, according to the specified procedure, to the relevant environmental protection department for examination and approval. The building of sewage outlets within any water conservancy projects such as canals, irrigation channels and reservoirs shall be subject to consent of the relevant department in charge of water conservancy projects.

The facilities for prevention and control of water pollution must be designed, constructed and put to use or into operation simultaneously with the main part of a construction project. Such facilities must be inspected by the environmental protection department. If they do not conform to the specified requirements, the said project shall not be permitted to be put into operation or to use.

An environmental impact statement shall contain comments and suggestions of the units and residents in the place where the construction project is located.

Article 14 Enterprises and institutions that discharge pollutants directly or indirectly into a water body shall, pursuant to the regulations of the environmental protection department under the State Council, report to and register with the local environmental protection department their existing facilities for discharging and treating pollutants, and the categories, quantities and concentrations of pollutants discharged under their normal operating conditions, and also provide to the same department technical information concerning prevention and control of water pollution.

The enterprises and institutions mentioned in the preceding paragraph shall report without delay any substantial change in the categories, quantities or concentrations of the pollutants discharged. Their facilities for treating water pollutants must be kept in normal operation; when such facilities are to be dismantled or left idle, the matter must be reported in advance to the environmental protection department of the local people's government at or above the county level for approval.

Article 15 Enterprises and institutions that discharge pollutants into a water body shall pay a pollutant discharge fee in accordance with State regulations; if the discharge exceeds the limits set by the national or local standards, they shall pay a fee for excess discharge according to State regulations.

The fees paid for pollutant discharge and for excess discharge must be used for prevention and control of water pollution and may not be used for any other purposes.

Enterprises and institutions that discharge pollutants in excess of the standards must work out plans to make the discharge conform to the standards, and shall submit, for the record, such plans to the environmental protection department of the local people's government at or above the county level in the place where they are located.

Article 16 With regard to water bodies where the standards for water environment quality established by the State still cannot be attained although the discharge of water pollutants has conformed to the discharge standards, the people's governments at or above the provincial level may institute a system for control of the total discharge of major pollutants, and a system for making an estimate before deciding on the quantity of major pollutants to be discharged by an enterprise that is

charged with the task of reducing its discharge. Specific measures shall be formulated by the State Council.

Article 17 The environmental protection department under the State Council may, together with the water conservancy administration department under the State Council and the provincial people's government concerned and in light of the utilization functions determined by the State for water bodies of major river basins as well as the economic and technological conditions of the related regions, establish water environment quality standards applicable to water bodies of such major river basins within the provincial boundaries, and such standards shall be put into practice after being reported to and approved by the State Council.

Article 18 Water resources protection agencies for major river basins determined as such by the State shall be responsible for monitoring the water environment quality conditions of such river basins within the boundaries of the provinces where they are located and shall, without delay, report the monitoring findings to the environmental protection department under the State Council and the water conservancy administration department under the State Council; where there are leading bodies for protection of water resources of the river basins that are set up with the approval of the State Council, such findings shall, without delay, be reported to those leading bodies.

Article 19 Urban sewage shall be centrally treated.

Relevant departments under the State Council and the local people's governments at various levels must incorporate protection of urban water sources and prevention and control of urban water pollution in their respective plans for urban construction, construct and improve networks of urban drainage pipelines, construct facilities for central treatment of urban sewage according to plans, and improve all-round treatment and control of urban water environment.

Facilities for central treatment of urban sewage shall be, according to State regulations, provided for use with compensation, that is, a sewage treatment fee shall be collected so as to ensure normal operation of the facilities. Those who discharge sewage to the central treatment facilities and pay the fees for sewage treatment shall be exempted from the pollutant discharge fee. Sewage treatment fees collected shall be used for the construction and operation of the facilities for central treatment of urban sewage and may not be used for other purposes.

Specific measures for collection, control and use of the fees for facilities for central treatment of urban sewage shall be formulated by the State Council.

Article 20 The people's governments at or above the provincial level may delineate surface sources protection zones for domestic and drinking water according to law. Such protection zones shall be divided into first-grade protection zones and protection zones of other grades. Certain water areas and land-based areas near the intakes of domestic and drinking surface water sources may be delineated as the first-grade protection zones. Certain water areas and land-based areas beyond the first-grade protection zones may be delineated as protection zones of other grades. Protection zones of all grades shall be indicated by clear geographic demarcations.

It is forbidden to discharge sewage into water bodies within the first-grade surface sources protection zones for domestic and drinking water.

It is forbidden to travel, swim or carry out other activities within the first-grade surface sources protection zones for domestic and drinking water that may possibly cause pollution to the water body.

It is forbidden to construct or expand within the first-grade surface sources protection zones for domestic and drinking water, any projects that have nothing to do with water supply facilities and protection of water sources.

With regard to sewage outlets already built in the first-grade surface sources protection zones for domestic and drinking water, the people's governments at or above the county level shall, pursuant to the limits of power authorized by the State Council, order that they be dismantled or treated within a time limit.

The protection of ground sources for domestic and drinking water shall be strengthened.

Specific measures for protection of domestic and drinking water sources shall be formulated by the State Council.

Article 21 In case of emergency, such as severe pollution of a domestic and drinking water source which threatens the safe supply of water, the environmental protection department shall, with the approval of the people's government at the same level, take compulsory emergency measures, including ordering the enterprises or institutions concerned to reduce or stop the discharge of pollutants.

Article 22 Enterprises shall employ clean production techniques that facilitate high utilization efficiency of raw and semi-finished materials and reduced discharge of pollutants and improve management to decrease water pollutants.

The State shall institute a system for eliminating outdated production techniques and equipment which seriously pollute the water environment.

The competent department for comprehensive economic and trade affairs under the State Council shall, together with the relevant departments under the State Council, publish the catalogue for techniques which seriously pollute the water environment and for stopping the use of which a time limit is fixed, as well as the catalogue of equipment which seriously pollute the water environment and for stopping the manufacture, sale, import and use of which a time limit is fixed.

Manufacturers, sellers, importers and users must, within the time limit fixed by the competent department for comprehensive economic and trade affairs under the State Council together with the relevant departments under the State Council, stop manufacturing, selling, importing or using the equipment listed in the catalogue mentioned in the preceding paragraph. Users of the production techniques listed in the catalogue mentioned in the preceding paragraph must stop using such production techniques within the time limit fixed by the competent department for comprehensive economic and trade affairs under the State Council together with relevant departments under the State Council.

No equipment that has been eliminated according to the provisions of the preceding two paragraphs may be transferred

to others for use.

Article 23 The State shall forbid construction of any small enterprises, devoid of measures for prevention and control of water pollution, that seriously pollute the water environment, such as chemical pulp mills, printing and dyeing mills, dyestuff mills, tanneries, electroplating factories, oil refineries and pesticides manufacturers.

Article 24 Any pollutant discharging unit that causes serious pollution to a water body shall be ordered to treat the pollution within a time limit.

For enterprises and institutions directly under the jurisdiction of the Central Government or the people's government of a province, autonomous region or municipality directly under the Central Government, a proposal on the time limit shall be made by the environmental protection department of the people's government of the province, autonomous region or municipality directly under the Central Government and submitted to the people's government at the same level for decision. For enterprises and institutions under the jurisdiction of the people's government at or below the county or city level, a proposal on the time limit shall be made by the environmental protection department of the people's government of the city or county and submitted to the people's government at the same level for decision. The pollutant discharging units shall accomplish treatment of the pollution as scheduled.

Article 25 Environmental protection departments and relevant supervision and management departments of the people's governments at various levels shall have the power to carry out on-site inspections of pollutant discharging units under their jurisdiction, and the units under inspection must report the situation truthfully and provide the necessary information. The inspecting authorities shall have the obligation to keep the technological and business secrets of the units inspected.

Article 26 Disputes over water pollution involving two or more administrative regions shall be settled through consultation by the local people's governments concerned, or through mediation by their people's government at a higher level.

#### CHAPTER IV PREVENTION OF SURFACE WATER POLLUTION

Article 27 No sewage outlet may be built in the protection zones for domestic and drinking water sources, for water bodies at scenic or historic sites, for important fishery water bodies and for other water bodies of special economic and cultural value. If a sewage outlet is to be built in the vicinity of such protection zones, the water bodies within those zones must be protected against pollution.

Sewage outlets that have already been built prior to promulgation of this Law, but that discharge pollutants in excess of the limits set by the national or local standards shall be tackled and brought under control. Any outlet that endangers drinking water sources shall be relocated.

Article 28 If a pollutant discharging unit, as a result of an accident or other exigency, discharges pollutants in excess of normal quantities and thus causes or may possibly cause a water pollution accident, it shall immediately take emergency measures, inform such units as are likely to be endangered or damaged by the water pollution and report the matter to the local environmental protection department. Where a ship has caused a pollution accident, it shall report the matter to the nearest navigation administration office for investigation and disposal.

Where a pollution accident occurs to fishery, the matter shall be investigated and handled by the fishery supervision and administration department.

Article 29 It is forbidden to discharge any oil, acid or alkaline solutions or deadly toxic liquid waste into any water body.

Article 30 It is forbidden to wash and clean in any water body any vehicles or containers which have been used for storing oil or toxic pollutant.

Article 31 It is forbidden to discharge or dump into any water body or directly bury deadly toxic soluble slag, tailings, etc. containing such substances as mercury, cadmium, arsenic, chromium, lead, cyanide and yellow phosphorus.

Sites for depositing deadly toxic soluble slag, tailings, etc. shall be made waterproof and protected against seepage and leaking.

Article 32 It is forbidden to discharge or dump industry waste residues, urban refuse or other wastes into any water body.

Article 33 It is forbidden to pile or deposit solid wastes and other pollutants on beaches and bank slopes below the highest water level of rivers, lakes, canals, irrigation channels and reservoirs.

Article 34 It is forbidden to discharge or dump radioactive solid wastes or waste water containing any high-or medium-level radioactive substances into any water body.

Any discharge of waste water containing low-level radioactive substances into any water body must comply with the regulations and standards of the State for radioactive protection.

Article 35 Where heated waste water is discharged into any water body, measures shall be taken to ensure that the temperature of the water body conforms to the standards for water environment quality, so as to prevent any heat pollution hazard.

Article 36 Pathogen-contaminated sewage may be discharged only after it is disinfected to meet the relevant standards of the State.

Article 37 Where industrial waste water or urban sewage is discharged into farmland irrigation channels, attention shall be paid to ensuring that the water quality at the nearest irrigation intake downstream conforms to the standards for the farmland irrigation water quality.

When industrial waste water or urban sewage is used for irrigation, attention shall be paid to guarding against pollution of the soil, ground water and agricultural products.

Article 38 The application of pesticides shall comply with the regulations and standards of the State for their safe use.

Transportation and storage of pesticides and disposal of expired or ineffective pesticides shall be strictly controlled to prevent water pollution.

Article 39 The administrative departments for agriculture and other departments concerned of the local people's governments at or above the county level shall take measures to provide guidance to agricultural producers as to how to apply fertilizers and pesticides scientifically and rationally, so as to prevent their excessive use and water pollution.

Article 40 The discharge of oil-bearing waste water or domestic sewage from ships shall comply with the standards for pollutant discharge by ships. Ocean-going ships, on entering inland rivers or harbors, shall observe the standards for pollutant discharge by inland river ships.

Residual oil or waste oil of ships must be recovered, and its discharge into any water body shall be forbidden. It is forbidden to dump ship refuse into any water body.

Where ships are being loaded with or transporting oils or toxic cargoes, measures must be taken against any spillage or leakage of the oils and against such cargoes from falling into water, in order to prevent water pollution.

#### **CHAPTER V PREVENTION OF GROUND WATER POLLUTION**

Article 41 Enterprises and institutions shall be forbidden to discharge or dump waste water containing toxic pollutants or pathogens or other wastes into seepage wells or pits, crevices or karst caves.

Article 42 At places where no satisfactory impervious strata exist, enterprises and institutions shall be forbidden to use ditches, pits or ponds devoid of safeguards against seepage for conveyance or storage of waste water containing toxic pollutants or pathogens, or of other wastes.

Article 43 In exploiting ground water from multiple aquifers, layered exploitation shall be resorted to if the water quality differs greatly from one aquifer to another. No combined exploitation of perched water and artesian water already polluted may be permitted.

Article 44 While constructing underground engineering facilities or carrying out underground prospecting, mining and other underground activities, protective measures shall be taken to prevent ground water pollution.

Article 45 Artificial recharge for ground water may not deteriorate the quality of ground water.

#### **CHAPTER VI LEGAL LIABILITY**

Article 46 Any one who, in violation of the provisions of this Law, commits any of the following acts, shall, in light of the seriousness of the case, be warned or fined by the environmental protection department or by the navigation administration office of the communications department:

- (1) refusing to report or submitting a false report on items for which registration is required by the environmental protection department under the State Council for discharge of pollutants;
- (2) refusing an on-site inspection by the environmental protection department or the supervision and management department concerned, or resorting to deception;
- (3) storing, piling, abandoning, dumping or discharging any pollutant or waste in violation of the relevant provisions of Chapters IV and V of this Law; or
- (4) failing to pay, as provided for by the State, the fee for pollutant discharge or for excess discharge.

The amount of fine and the procedure for its imposition shall be stipulated in the rules for implementation of this Law.

Article 47 If any unit, in violation of the provisions of the third paragraph of Article 13 of this Law, puts into production or to use a construction project for which the construction of facilities for prevention and control of water pollution has not been completed or whose facilities for prevention and control of water pollution fail to meet the requirements laid down by the State, the environmental protection department that approved the environmental impact statement of the said project shall order the unit to suspend production or use, and may also impose a fine on it.

Article 48 If any pollutant discharging unit, in violation of the provisions of the second paragraph of Article 14 of this Law, intentionally does not use the water pollutant treatment facilities in a normal manner, or dismantles or lays idle such facilities without approval of the environmental protection department and thus discharges pollutants in excess of the standards, the environmental protection department of the local people's government at or above the county level shall order the unit to restore the normal use or to re-install and use the facilities within a time limit, and may also impose a fine on it.

Article 49 If any unit, in violation of the provisions of the fourth paragraph of Article 20 of this Law, constructs or expands, within a first-grade surface sources protection zone for domestic and drinking water, the people's government at or above the county level shall, pursuant to the limits of power authorized by the State Council, order the unit to suspend operation or to close down.

Article 50 If any unit, in violation of the provisions of Article 22 of this Law, manufactures, sells, imports or uses equipment that is prohibited from being manufactured, sold, imported or used or employs production techniques that are prohibited from being employed, the competent department for comprehensive economic and trade affairs of the people's government at or above the county level shall order to set it right; if the violation is serious, the competent department for comprehensive economic and trade affairs of the people's government at or above the county level shall submit a proposal to the people's government at the same level that it, within the limits of its power authorized by the State Council, order the unit to suspend operation or to close down.

Article 51 If, in violation of the provisions of Article 23 of this Law, a small enterprise devoid of water pollution prevention and control measures is constructed and thus it causes severe pollution to the water environment, the people's government of the city or county where it is located or the people's government at a higher level shall order it to close down.

Article 52 An enterprise or institution which has caused severe pollution to a water body but has failed to eliminate such pollution on expiration of the time limit shall, according to regulations of the State, pay twice or more the fee for excess discharge, and may, in the light of consequent damage and loss, also be fined or ordered to suspend operation or close down.

The fine shall be decided by the environmental protection department. The order for suspension of operation or shutdown of an enterprise or institution shall be issued by the local people's government which sets the time limit for elimination of the pollution; The order for suspension of operation or shutdown of an enterprise or institution under direct jurisdiction of the Central Government shall be submitted to the State Council for approval.

Article 53 If a pollutant discharging unit, in violation of the provisions of this Law, causes a water pollution accident, the environmental protection department of the people's government at or above the county level in the place where the accident occurs shall, in light of the consequent damage and loss, impose a fine on it.

If a unit causes a fishery pollution accident or a ship causes a water pollution accident, the fishery supervision and administration department or the navigation administration office of the communications department in the place where the accident occurs shall impose a fine on the unit or ship in light of the consequent damage and loss.

If a water pollution accident is relatively serious, the persons who are responsible for the accident shall be given administrative sanctions by the unit to which they belong or by the competent department at a higher level.

Article 54 A party that refuses to accept the decision on administrative penalty may, within 15 days from the date of receiving the notification, bring a suit in a People's Court; if the party, upon expiration of the period, neither brings a suit nor complies with the decision, the organ which made the decision on the penalty shall apply to the People's Court for enforcement.

Article 55 A unit which has caused a water pollution hazard shall have the responsibility to eliminate it and make compensation to the unit or individual that has suffered direct losses.

A dispute over liability to make compensation or the amount of compensation may, at the request of the parties, be settled by the environmental protection department or by the navigation administration office of the communications department. If a party refuses to accept the settlement decision, he may bring a suit to a People's Court. The party may also bring a suit to a People's Court directly.

If the loss from water pollution is caused by a third party intentionally or negligently, the third party shall be liable to make compensation.

If the loss from water pollution is caused due to the victim's own fault, the pollutant discharging unit shall bear no liability for it.

Article 56 If the loss from water pollution is caused entirely by irresistible natural disasters which cannot be averted even after reasonable measures have been promptly taken, the party concerned shall be exempted from liability.

Article 57 If any one, in violation of the provisions of this Law, gives rise to a major water pollution accident which leads to any heavy loss to public or private property or serious injury to or death of a person, the persons who are responsible for it may be investigated for criminal responsibility by applying mutatis mutandis the provisions of Article 115 or Article 187 of the Criminal Law.

Article 58 If any supervisor or administrator from the environmental protection department or any other State functionary abuses his power, neglects his duty or engages in malpractice for personal gain, the unit to which he belongs or the competent department at a higher level shall give him an administrative sanction; if a crime is constituted, he shall be

investigated for criminal responsibility according to law.

#### CHAPTER VII SUPPLEMENTARY PROVISIONS

Article 59 The standing committees of the people's congresses of provinces, autonomous regions and municipalities directly under the Central Government shall, with reference to the principles of this Law, formulate control measures governing discharge of pollutants by private industrialists and businessmen who cause serious pollution.

Article 60 For the purpose of this Law, the definitions of the following terms are:

- (1) "Water pollution" means the introduction into a water body of any substance which alters the chemical, physical, biological or radioactive properties of the water in such a way as to affect its effective use, endanger human health, damage the ecosystem or deteriorate the water quality.
- (2) "Pollutant" means a substance that is capable of causing water pollution.
- (3) "Toxic pollutant" means a pollutant that, when ingested by organisms directly or indirectly, leads to diseases, abnormal behaviour, genetic mutation, physiological functional disturbance, organism deformity or death of the organisms themselves or their offsprings.
- (4) "Oil" means any kind of oils or its refined products.
- (5) "Fishery water bodies" means those parts of water bodies designated for the spawning, feeding, wintering or migratory passage of fish or shrimp, and for breeding fish, shrimp or shellfish or growing algae.

Article 61 The environmental protection department under the State Council shall, on the basis of this Law, formulate detailed rules for implementation of this Law, which shall be put into effect after being submitted to and approved by the State Council.

Article 62 This Law shall come into force on May 15, 1996.

(quoted from the website of *State Environmental Protection Administration (SEPA)*,  
URL: <http://www.zhb.gov.cn/english/chanel-3/detail-3.php3?chanel=3&column=1&id=5>)

**Appendix 4**  
**Implementation of the Law of the People's Republic of China**  
**on Water Pollution Prevention and Control**  
**(State Council of the People's Republic of China, Law No.284)**

## **Implementation of the Law of the People's Republic of China on Water Pollution Prevention and Control**

(Promulgated by Decree No.284 of the State Council on March 20, 2000, and entry into operation on the day of promulgation)

### **Chapter I General Provisions**

Article 1 In accordance with the Law of the People's Republic of China on the Prevention and Control of Water Pollution (hereinafter referred to as the Law on the Prevention and Control of Water Pollution), these Rules are formulated.

### **Chapter II Supervision and Management of the Prevention and Control of Water Pollution**

Article 2 The plan on the prevention and control of water pollution for the basin formulated according to the provisions of Article 10 of the Law on the Prevention and Control of Water Pollution shall contain the followings:

1. environmental function requirements of the water body;
2. water quality goals and time limits at different stages;
3. key zones for the prevention and control of water pollution and the major pollution sources, and the concrete measures for the control; and
4. the construction plan on urban drainage and waste water treatment facilities within the basin.

Article 3 The competent administrative departments of water of people's governments at and above the county level shall, when determining the minimum water effusion from the dams of large and medium reservoirs, guarantee the natural purification capability of the downstream water body and solicit the opinions of the departments of environmental protection of people's governments at the same level.

Article 4 An enterprise or institutional unit must, if discharging a pollutant into a water body, submit an Application Form for the Registration of Pollutant Discharge to the department of environmental protection of the local people's government at or above the county level in the place where it is located.

If an enterprise or institutional unit discharges a pollutant in excess of the pollutant discharge standards established by the State or the locality, it shall give the reasons therefor and the measures of treatment within a given time limit at the time of submitting the Application Form for the Registration of Pollutant Discharge.

Article 5 If an enterprise or institutional unit needs to dismantle or set idle its pollutant treatment facilities, it must apply to the department of environmental protection of the local people's government at or above the county level in the place where it is located in advance and give the reasons therefor. Within one month from the date of receiving the application, the department of environmental protection shall make a decision of approval or disapproval and give a written reply. If no reply is given as scheduled, it is deemed an approval.

Article 6 If a water body is not in compliance with the water environmental quality standards established by the State even after the discharge of pollutants has been in compliance with the standards, the system of control of the total discharge of major pollutants may be employed.

The plans on the control of total discharge for important river basins determined by the State are formulated by the department of environmental protection of the State Council, jointly with the relevant departments of the State Council and in consultation with the people's governments of related provinces, autonomous regions and municipalities directly under the Central Government, and reported to the State Council for approval. The plans on the control of total discharge for other water bodies are formulated by the departments of environmental protection of the people's governments of provinces, autonomous regions and municipalities directly under the Central Government, jointly with the relevant departments at the same level and in consultation with the local people's governments concerned, and reported to the people's governments of provinces, autonomous regions and municipalities directly under the Central Government for approval. Of them, the plans on the control of total discharge for the water bodies involving two or more provinces, autonomous regions and municipalities directly under the Central Government are formulated through consultation by the people's governments of related provinces, autonomous regions and municipalities directly under the Central Government.

Article 7 A plan on the control of total discharge shall contain the area of the control of total discharge, types and total discharge of major pollutants, and the pollutant discharge to be reduced and the time limit for the reduction.

Article 8 If the control of total discharge of major pollutants is imposed on a water body according to law, the local people's government at or above the county level shall organize to formulate the implementing program for the control of total discharge for the said water body within its own administrative area in accordance with the quantity of the control of total discharge allocated by the plan on the control of total discharge.

The implementing program for the control of total discharge shall determine the units required to reduce their pollutant discharges, the types and the quantities of the control of total discharge of key pollutants of each pollutant discharging unit, and the pollutant discharge to be reduced and the time limit for the reduction.



Article 9 The allocation of quantities of the control of total discharge of major pollutants shall be in compliance with the principle of openness, fairness and impartiality and be carried out in a scientific and unified method. The measures for the allocation of quantities of the control of total discharge are formulated by the department of environmental protection of the State Council in consultation with the relevant departments of the State Council.

Article 10 The departments of environmental protection of local people's governments at and above the county level examine and approve the discharge quantities of major pollutants being discharged into the water bodies of the units within their respective administrative areas according to the implementing program for the control of total discharge and issue the pollutant discharge permit to those whose discharge does not exceed the quantities of the control of total discharge; order those whose discharge exceeds the quantities of the control of total discharge to make treatment within a given time limit and issue the interim pollutant discharge permit for the treatment period. The concrete measures therefor are formulated by the department of environmental protection of the State Council.

Article 11 The units reducing the pollutant discharge determined under the implementing program for the control of total discharge must construct pollutant discharge outlets and install monitoring equipment for the control of total discharge according to the regulations of the department of environmental protection of the State Council.

Article 12 The people's governments of provinces, autonomous regions and municipalities directly under the Central Government in the places where the major river basins determined by the State are located shall implement the water environmental quality standards applicable to water bodies within provincial boundaries approved by the State Council.

Article 13 The monitoring of water environmental quality for water bodies of the major river basins within provincial boundaries determined by the State must be governed strictly by the water environmental quality monitoring norms formulated by the department of environmental protection of the State Council.

Article 14 The administration departments of urban construction shall, according to the overall urban planning, organize to formulate the specialized plans on urban drainage and waste water treatment, and organize to construct the central treatment facilities for urban waste water according to the requirements of the plans.

Article 15 The quality of water flowing out of the central treatment facilities for urban waste water is governed by the pollutant discharge standards established by the State or the localities.

The operating units of central treatment facilities for urban waste water shall be responsible for the quality of water flowing out of the central treatment facilities for urban waste water.

The departments of environmental protection shall carry out sample inspections into the quality and quantity of water flowing out of the central treatment facilities for urban waste water.

Article 16 A pollutant discharge unit which is ordered to make treatment within a given time limit shall submit its treatment plan to the department of environmental protection of the people's government which made the decision of treatment within the given time limit, and shall report the progress of the treatment regularly.

The department of environmental protection of the people's government which made the decision of treatment within a given time limit shall inspect the treatment progress of the pollutant discharge unit which is ordered to make treatment within a given time limit, and shall carry out the acceptance inspection into the project of treatment within a given time limit when completed.

The pollutant discharge unit which is ordered to make treatment within a given time limit must finish the treatment task as scheduled. If it is unable to do so due to force majeure, it must, within one month after the occurrence of the force majeure, submit an application for an extension of the treatment time to the department of environmental protection of the people's government which made the decision of treatment within the given time limit, and the people's government which made the said decision examines the application and makes a decision therefor.

Article 17 When the departments of environmental protection and the maritime and fishery administration bodies conduct on-spot inspections into the units which discharge pollutants into water bodies within the scope of their jurisdiction, they shall show the certificates of administrative law enforcement or wear badges of administrative law enforcement.

Article 18 When the departments of environmental protection and the maritime and fishery administration bodies conduct on-spot inspections, they may, according to the needs, demand the units being inspected to provide the following information and materials:

1. information about the discharge of pollutants;
2. information about the pollutant treatment facilities, and their use, operation and management;
3. models and specifications of the monitoring equipment, instruments and facilities and information about their inspection and calibration;
4. the monitoring analytical methods employed and monitoring records;
5. information about the progress of treatment within a given time limit;

6. information about accidents and related records;
7. materials about the production process and the use of raw materials relevant to pollution; and
8. other information and materials related to the prevention and control of water pollution.

Article 19 An enterprise or institutional unit which causes a water pollution accident must take measures without delay, stop or reduce its pollutant discharge and within 48 hours after the occurrence of the accident, make a preliminary report on the time, site and type of the accident, the types and quantity of pollutant discharged, economic loss, personal harms and emergency measures taken to the local department of environmental protection; and after the accident is clearly investigated into, it shall make a written report on the cause of the accident, process, harms, measures taken, treatment results, potential harms of the accident or indirect harms, social impact, leftover problems and precaution measures, and provide relevant documentary evidences.

After receiving the preliminary report on the water pollution accident, the department of environmental protection shall immediately report it to the people's government at the same level and the department of environmental protection of the people's government at the next higher level, and the local people's government concerned shall organize the relevant departments to investigate into the cause of the accident and take effective measures to reduce and eliminate the pollution. The department of environmental protection of the people's government at or above the county level shall organize to monitor the water areas that are likely to be affected by the pollution accident and investigate and deal with the accident.

When a ship causes a water pollution accident, an immediate report must be made to the nearby maritime administration body. If a pollution accident is caused to a water body of fishery, an immediate report must be made to the fishery administration body in the place of the accident. The maritime or fishery administration body shall, after receiving such a report, notify it to the department of environmental protection of the people's government at the same level and immediately start to investigate and deal with it.

If a water pollution accident causes or is likely to cause harms or damages in two or more administrative areas, the local people's government at or above the county level in the place of accident shall immediately inform the people's governments in the places that are harmed or damaged or are likely to be harmed or damaged by the accident of the time, site and type of the accident, the types and quantity of pollutants discharged and the required precaution measures.

### **Chapter III Prevention of Surface Water Pollution**

Article 20 The surface water source protective zones for domestic and drinking water involving two or more provinces, autonomous regions and municipalities directly under the Central Government are determined through consultation by the relevant people's governments of provinces, autonomous regions and municipalities directly under the Central Government; and if they fail to do so, the department of environmental protection of the State Council proposes a plan of determination jointly with the relevant departments of water resources, land resources, health and construction of the State Council and report it to the State Council for approval.

In determining other surface water source protective zones for domestic and drinking water, the people's governments of the cities or counties concerned propose the plans of determination through consultation, and report them to the people's governments of provinces, autonomous regions and municipalities directly under the Central Government for approval; and if they fail to do so, the departments of environmental protection of the people's governments of provinces, autonomous regions and municipalities directly under the Central Government, jointly with the relevant departments of water resources, land resources, health and construction at the same level, propose the plans of determination and report them to the people's governments of provinces, autonomous regions and municipalities directly under the Central Government for approval.

The surface water source protective zones for domestic and drinking water are classified into the Grade I protective zone and Grade II protective zone.

Article 21 The State's Surface Water Environmental Quality Standards of Category II is applicable to the quality of domestic and drinking water in the Grade I protective zones of surface water sources; and the State's Surface Water Environmental Quality Standards of Category III is applicable to the water quality in the Grade II protective zones.

Article 22 The protection of the Grade I protective zones for surface water sources for domestic and drinking water is governed by the provisions of Article 20 of the Law on the Prevention and Control of Water Pollution.

Article 23 It is forbidden to start or expand the construction projects discharging pollutants into the water bodies within the Grade II protective zones of surface water sources for domestic and drinking water. If a project is reconstructed within the Grade II surface water source protective zone for domestic and drinking water, the quantity of pollutant discharge must be reduced

Within the Grade II protective zones of surface water sources for domestic and drinking water, it is forbidden to discharge pollutants in excess of the pollutant discharge standards established by the State or the localities.

Within the Grade II protective zones of surface water sources for domestic and drinking water, it is forbidden to construct docks for handling rubbish, oils or other toxic or harm materials.

Article 24 If the industrial waste water and urban waste water are used for irrigation, the competent administrative departments of agriculture of local people's governments at or above the county level shall organize the regular monitoring over the quality of water used for irrigation, soil after irrigation and farm produces, and take corresponding measures to prevent pollution to the soil, ground water and farm produces.

Article 25 Ships in inland rivers shall be equipped with pollution prevention equipment that are in compliance with the State's regulations, and have the quality certificates issued by the ship inspection departments.

A ship which does not have pollution prevention equipment or whose pollution prevention equipment is not in compliance with the State's regulations shall meet the specified standards within a given time limit.

Article 26 Ships in inland rivers must have pollution prevention documents or log documents required by the maritime administration bodies. Oil tankers with a tonnage at or above 150 tons or non-oil tankers with a tonnage at or above 400 tons in inland rivers must have their records of types of oils.

Article 27 Ports or docks shall be equipped with the receiving and treatment facilities of waste water containing oil and refuses. The port management units are responsible for the construction, management and maintenance of such receiving and treatment facilities.

No ship in the inland river may discharge waste oil, residue oil or rubbish into the water body. Passenger and tourist ships in inland rivers must establish the rubbish control system.

Article 28 The following operations carried out by ships at the ports must be applied for in advance to the maritime administration bodies and may be started within the designated areas only after being approved:

1. to wash the decks of ships loaded with toxic goods and bulk goods with dust or the cabins;
2. to discharge ballast, cabin washing or engine room waste water and other residue substances; or
3. to use chemical oil detergent.

Article 29 When oils and other toxic, harmful, corrosive and radioactive goods are loaded onto or unloaded from ships at ports or docks, the ship parties and the operation units must take precaution measures to prevent pollution to water bodies.

Article 30 If a ship accident causes or is likely to cause pollution to a water body, the maritime administration body shall organize compulsory salvage or tugging, and all expenses therefrom are borne by the ship party at fault.

Article 31 The units engaging in ship building, repairing, dismembering and ship salvaging must be equipped with pollution prevention equipment and facilities. When conducting such operations, they shall take precaution measures to prevent pollution to water bodies by oils, oil mixtures and other refuses.

#### **Chapter IV Prevention of Ground Water Pollution**

Article 32 The departments of environmental protection of local people's governments at or above the county level, jointly with the relevant administrative departments such as water resources, land resources, health and construction at the same level, propose the plans of determination for ground water source protective zones for domestic and drinking water in accordance with the geographic location of water sources for domestic and drinking water, hydrogeological conditions, capacity of water supply, exploration method and distribution of sources of pollution, and report them to the people's governments at the same level for approval.

The State's Ground Water Quality Standards of Category II are applicable to the quality of water in ground water source protection zones for domestic and drinking water.

Article 33 It is forbidden to carry out the following activities within the ground water source protective zones for domestic and drinking water:

1. to use waste water for irrigation;
2. to use sludge containing toxic pollutants as manure;
3. to use farm chemicals with hypertoxic or high residues; or
4. to use cracks or cavity of the water storage stratum, karst caves or deserted mine pits to store oils, radioactive substances, toxic chemicals or farm chemicals.

Article 34 When extracting ground water involving multiple strata, the following water storage strata shall be extracted separately and may not be extracted in a mixed manner:

1. semi-saltwater, saltwater and bittern strata;
2. water storage stratum already polluted;
3. water storage stratum that contains toxic, harmful elements and the percentage exceeds the health standards for domestic and drinking water; and
4. ground hot water, hot springs and mineral water with medical values and special economic values.

Article 35 If a prospecting project exposes or penetrates through the water storage strata, the work to block water by stratum and close the holes must be done well strictly according to the relevant requirements.

Article 36 When toxic or harmful waste water is discharged from mining shaft or mining pits, water collection projects shall be constructed in the surrounding areas of the mine beds and the effective measures are taken to prevent pollution to the ground water.

Article 37 The quality of water siphoned back into underground to supplement drinking ground water shall be in compliance with the quality standards of water sources for domestic and drinking water, and shall be approved by the competent administrative departments of health of local people's governments at or above the county level.

## Chapter V Legal Responsibility

Article 38 The imposition of fines under the provisions of Sub-paragraphs (1), (2) and (4) of Paragraph 1 of Article 46 of the Law on the Prevention and Control of Water Pollution is governed by the following provisions:

1. If refusing to apply or applying falsely for a pollutant discharge registration item required by the department of environmental protection of the State Council, a fine not exceeding 10,000 yuan may be imposed thereon;
2. If refusing an on-spot inspection from the department of environmental protection or maritime or fishery administration body or resorting to fraudulence, a fine not exceeding 10,000 yuan may be imposed thereon; and
3. If failing to pay the pollutant discharge fee or the excessive pollutant discharge fee, a fine not exceeding 50% of the fee payable may be imposed thereon, in addition to press for the payment of the pollutant discharge fee or the excessive pollutant discharge fee and the overdue fine.

Article 39 The imposition of fines under the provisions of Sub-paragraph (3) of Paragraph 1 of Article 46 of the Law on the Prevention and Control of Water Pollution is governed by the following provisions:

1. If discharging or dumping waste liquid containing hypertoxic or dissolvable hypertoxic waste residues containing mercury, cadmium, arsenic, chromium, cyanide or yellow phosphorus into the water body or directly burying them underground, a fine not exceeding 100,000 yuan may be imposed thereon;
2. If discharging or dumping radioactive solid wastes, oils, acid solutions or alkali solutions or waste water containing high or medium level radioactive substances into the water body, a fine not exceeding 50,000 yuan may be imposed thereon;
3. If discharging residue oils or waste oils into the water body or cleaning vehicles or containers used to carry or contain oils and toxic pollutants in the water body, a fine not exceeding 10,000 yuan may be imposed thereon;
4. If discharging or dumping industrial waste residues or urban living refuses into the water body, or piling solid wastes at the tidal land or bank slopes below the highest water marks of rivers, lakes, canals, ditches or reservoirs, a fine not exceeding 10,000 yuan may be imposed thereon;
5. If dumping rubbish from the ship into the water body, a fine not exceeding 2,000 yuan may be imposed thereon;
6. If an enterprise or institutional unit uses karst caves to discharge or dump waste water containing pathogens or any other refuses, a fine not exceeding 20,000 yuan may be imposed thereon; and if it uses a seepage well, seepage pit or crack to discharge waste water containing toxic pollutants, a fine not exceeding 50,000 yuan may be imposed thereon; and
7. If an enterprise or institutional unit uses a ditch or pond without anti-seepage measures to transport or store waste water containing pathogens or any other refuses, a fine not exceeding 10,000 yuan may be imposed thereon; and if it uses a ditch or pond without anti-seepage measures to transport or store waste water containing toxic pollutants, a fine not exceeding 20,000 yuan may be imposed thereon.

Article 40 If a fine is imposed according to the provisions of Article 47 of the Law on the Prevention and Control of Water Pollution, the fine not exceeding 100,000 yuan may be imposed.

Article 41 If a fine is imposed according to the provisions of Article 48 of the Law on the Prevention and Control of Water Pollution, a fine not exceeding 100,000 yuan may be imposed.

Article 42 If a fine is imposed according to the provisions of Paragraph (1) of Article 52 of the Law on the Prevention and Control of Water Pollution, a fine not exceeding 200,000 yuan may be imposed.

Article 43 The fines under the provisions of Article 53 of the Law on the Prevention and Control of Water Pollution are governed by the following provisions:

1. If an enterprise or institutional unit causes a water pollution accident; the fine is calculated at 20% of the direct loss, but the maximum amount may not exceed 200,000 yuan; and
2. If a serious economic loss is caused, the fine is calculated at 30% of the direct loss, but the maximum amount may not exceed 1 million yuan.

Article 44 If failing to discharge pollutants according to the provisions of the pollutant discharge permit or the interim pollutant discharge permit, the department of environmental protection which issued the permit orders the party concerned to make corrections within a given time limit and may impose a fine not exceeding 50,000 yuan thereon; and may revoke the pollutant discharge permit or the interim pollutant discharge permit in the case of serious circumstance.

Article 45 If, in violation of the provisions of Article 11 of these Rules, failing to construct the pollutant discharge outlet or the total discharge control monitoring equipment as required, the department of environmental protection orders the

violator to make corrections within a given time limit and may impose a fine not exceeding 10,000 yuan thereon.

Article 46 If, in violation of the provisions of Paragraph 1 of Article 23 of these Rules, a construction project which discharges pollutants into the water body within a Grade II surface water source protective zone for domestic and drinking water is constructed or expanded, or a reconstructed project fails to reduce the pollutant discharge, the people's government at or above the county level orders the violator to suspend operation or shut down according to the specified limits of power.

If, in violation of Paragraph 2 of Article 23 of these Rules, a pollutant is discharged in excess of the State or local standards on pollutant discharges within the Grade II surface water source protective zone for domestic and drinking water, the people's government at or above the county level orders the violator to make treatment within a given time limit and may impose a fine not exceeding 100,000 yuan thereon; and if it fails to finish the treatment task at the expiry of the given time limit, the people's government at or above the county level orders the violator to suspend operation or shut down according to the specified limits of power.

If, in violation of the provisions of Paragraph 3 of Article 23 of these Rules, a dock for handling rubbish, oils and other toxic or harmful articles within a Grade II surface water source protective zone for domestic and drinking water is constructed, the department of environmental protection of the people's government at or above the county level orders the violator to dismantle it and may impose a fine not exceeding 100,000 yuan thereon.

Article 47 If, in violation of Sub-paragraph (4) of Article 33 of these Rules, cracks or cavity of the water storage stratum, karst caves or deserted mining pits are used to store oil, radioactive substance, toxic chemical or farm chemical, the department of environmental protection of the local people's government at or above the county level orders the violator to make corrections and may impose a fine not exceeding 100,000 yuan thereon.

Article 48 The units which pay the pollutant discharge fee or the excessive pollutant discharge fee or are warned or fined are not exempt from the responsibilities to eliminate pollution and harm and to compensate the loss.

#### **Chapter VI Supplementary Provisions**

Article 49 These Rules enter into operation on the day of promulgation. The Rules for Implementation of the Law of the People's Republic of China on the Prevention and Control of Water Pollution approved by the State Council and promulgated by the State Environmental Protection Administration on July 12, 1989 are repealed at the same time.

(quoted from the website of *Lehman Lee & Xu*,  
URL: [http://www.lehmanlaw.com/lib/library/Laws\\_regulations/environment/rule\\_water.htm](http://www.lehmanlaw.com/lib/library/Laws_regulations/environment/rule_water.htm))



**Appendix 5**  
**Emission Standard of Air Pollutants for Coal-burning**  
**Oil-burning Gas-fired Boiler**  
**(Tianjin local standard DB12/151-2003)**

## Emission Standard of Air Pollutants for Coal-burning Oil-burning Gas-fired Boiler (Tianjin local standard DB12/151-2003)

### Preface

All the technological articles in this standard are compulsory.

The previous Tianjin/DHJB1-1999 [Emission standard of air pollutants for coal-burning oil-burning gas-fired boiler] is amended for the sake of fulfilling continuous development strategy, protecting environment, meliorating environmental quality in Tianjin, and keeping healthy. The supervision over emission of air pollutants is expected to be reinforced and the total amount of emission of air pollutants is expected to be reduced via strict restriction on emission of air pollutants from boilers in Tianjin Thermal Power Plant and boilers used in industry, heating, and living. This standard is stipulated in accordance with the provisions of 19th article, the 25th article, the 26th article, and the 30th article in [the Environment Protection Act of China] and [the Air Pollutants Prevention Act of China] and Chapter 3 in [Tianjin Air Pollution Prevention Regulation].

This standard is submitted by Tianjin Environment Protection Agency and is ratified by Tianjin Municipal Government on July 18th, 2003.

This standard substitutes Tianjin/DHJB1-1999 [Emission standard of air pollutants for coal-burning oil-burning gas-fired boiler].

Compared with Tianjin/DHJB1-1999 [Emission standard of air pollutants for coal-burning oil-burning gas-fired boiler] this standard makes the following main amendments:

- Restricted amount of emission density of air pollutants from >45.5 MW boiler and boilers in thermal power plant (station) is increased;
  - Restricted amount of emission density of air pollutants from boiler is amended. Restricted amount of emission density of NO<sub>x</sub> in air pollutants from coal-burning boiler and boilers in thermal power plant (station) is increased;
  - Restricted amount of emission density of soot and sulfur dioxide from oil-burning and gas-filled boiler is amended;
  - Excessive air coefficient of emission density of air pollutants from thermal power plant (station) is stipulated.
- Stipulations on installment of on-line successive monitors in 14 MW and above boilers are strengthened;
- Expiration date for boilers-in-use, newly-built boilers, enlarged boilers and altered boilers is divided by time;
  - Location of boilers in Tianjin is divided by zones.

This standard is submitted by Tianjin Environment Protection Agency.

This standard is ratified by Tianjin Municipal Government.

This standard is drafted by Tianjin Environment Monitor Center.

This standard is drafted by Wang Tongjian, Weiwei, Tian Xiuhua, Liubo, and Tian Jianli.

Tianjin Environment Protection Agency is responsible for interpreting this standard.

### 1 Range of Application

This standard is applied to boilers-in-use, newly-built boilers, enlarged boilers and altered boilers. This standard stipulates the maximal permissible emission density and restricted emission amount of smoke blackness for all types of boilers' soot, sulfur dioxide, and nitric oxide.

This standard stipulates the restricted emission amount of air pollutants for thermal power plant (station) and boilers used in industry, heating, and living.

This standard is valid to boilers in Tianjin Thermal Power Plant and all types of coal-burning, oil-burning, and gas-filled boilers. The execution of other solid fuel can refer to the restricted emission amount of air pollutants for coal-burning boiler in this standard.

This standard is not valid to any other sizes of coal-feeder boilers and boilers burning living waste and various unsafe refuses.

### 2 Standard Cited Documents

Articles in the following documents are cited to form valid articles in this standard. All the subsequent rectified articles (excluding errata) or amended versions of dated documents do not apply to this standard, but parties reaching to an agreement in accordance with this standard are encouraged to make their own choices on whether or not they will employ any up-to-date versions.

|                |   |
|----------------|---|
| GB5468         | Testing method of boiler soot   |
| GB/T16157-1996 | Measurement of granule from emission of fixed pollutant origins and sampling method of vapor pollutants                       |
| GB13271-2001   | Emission standard of air pollutants for boiler  |
| GB13223-1996   | Emission standard of air pollutants for thermal power plant   |
| HJ/T42-1999    | Measurement of nitric oxide from emission of stable pollutant origins Ultraviolet spectral analysis                           |
| HJ/T56-2000    | Measurement of sulfur dioxide from emission of stable pollutant origins Iodine instillation method                            |
| HJ/T57-2000    | Measurement of sulfur dioxide from emission of stable pollutant origins Fixed current electrolysis                            |
| HT/T75-2001    | Successive monitoring standard for smoke emission from thermal power plant  |
| HJ/Y76-2001    | Technological requirement and testing method of successive monitoring system for smoke emission from stable pollutant origins |
|                | Air and exhaust monitoring and analysis method<br>(China Environmental Science Publication, 1990)                             |



Practical soot and smoke testing  
(China Environmental Science Publication, 1990)

### 3 Terminologies and Definitions

The following terminologies and definitions are valid to this standard.

#### 3.1 Boiler

Equipment that turns chemical energy of fuels into heat energy, and then passes the heat energy to water, gas, or heat-conduct oil, hence produces vapor, hot water, or heat via heat-conduct material.

The maximal emission amount of pollutants from boilers is determined by specified capacity (producing heat) by this standard. Production of 0.7MW is equivalent to 1t/h vapor amount.

#### 3.2 Standard State

The state when smoke temperature arrives at 273k and pressure arrives at 101325Pa, or “SS” as it is abbreviated. All the stipulated emission density of air pollutants in this standard is referring to the amount of dry smoke under standard state.

#### 3.3 Excessive Air Coefficient

The ratio of actual air amount to theoretical air amount when fuels are burned, designated as ‘ $\alpha$ ’.

#### 3.4 Successive Monitor on Smoke Emission

Successive and timely monitor on smoke emission of boilers, also designated as on-line successive monitor on smoke emission.

#### 3.5 Height of Chimney

Vertical distance from +0 ground surface where the boiler is located to the boiler’s outlet. Height of boilers located under the ground should deduct the part from the ground surface where the boiler is located to the +0 ground surface.

#### 3.6 Initial Emission density of Soot

Emission density of soot at boiler’s outlet or before it is sent into purifier.

#### 3.7 Emission Density of Air Pollutants of Boilers

Emission density of pollutants of boilers whose smoke has been purified. For boilers not being installed purifiers, its outlet pollutant density is the emission density. Emission density of air pollutants of boilers is referring to the average density within an hour via adopting on-line successive monitor or manual successive monitor.

### 4 Technological Requirements

#### 4.1 Division of Time

##### 4.1.1 Executive period of boilers-in-use

By this standard, boilers-in-use (excluding emission-prohibited boilers stipulated in 4.3) should execute respective amount restrictions on emission density of pollutants in two periods.

Period I: From effective date of this standard to the date prior to December 31, 2005.

Period II: Since January 1, 2006

##### 4.1.2 Executive period of newly-built boilers, enlarged boilers and altered boilers

This standard executes Period II to newly-built boilers, enlarged boilers and altered boilers (including boilers ratified before issue of this standard, which are under construction and have not been put into production).

#### 4.2 Division of Zones

Tianjin is divided into two zones of A and B by this standard.

Zone A: Existing area within exterior belt highway, Tianjin Economy and Technology Developing Zone, Tianjin Tariff Protection Zone, Tianjin New Technological Industry Zone, Nature Protection Zone, the Scenic Spot, the National Geography Park, the National Forest Park, and other zones required special protection.

Zone B: Other zones except for Zone A.

Boilers in thermal power plant (station) are not divided by zones.

#### 4.3 Stipulation on Prohibition of Emission of Coal-burning Boiler

Since the effective date of this standard, coal-burning boilers are prohibited from being built, enlarged, or altered in Zone A. Beginning from Period II, coal-burning boilers whose output is less than 7MW (included) are prohibited from being used in Zone A.

Boilers burning heavy oil and residue oil are prohibited from being built, enlarged, or altered. Boilers-in-use burning heavy oil and residue oil are executed as coal-burning boilers.

Coal-burning boilers less than 7MW (included) and coal pits having equivalent emission amount of air pollutants are prohibited from being built in existing area of Zone B.

Coal-burning boilers less than 7MW (included) are prohibited from being used in existing area and First Type area stipulated in [Quality Standard of Environment and Air] GB3095-1996. For coal-burning boilers less than 7MW (included) in non-existing area, soot is executed by 80mg/m<sup>3</sup>, sulfur dioxide is executed by 400mg/m<sup>3</sup>.

4.4 Restricted Amount of Air Pollutants for Boiler

Refer to Table 1 the maximal permitted emission density and restricted amount of smoke blackness of boiler's soot, sulfur dioxide, and nitric oxide. The initial emission density of soot is executed by stipulations in GB13271-2001. Refer to Table 2 the restricted emission amount of air pollutants for thermal power plant (station) and vapor boiler bigger than 45.5MW.

**Table 1 Restricted emission amount of air pollutants for boilers**

| Pollutants                          | Types of boiler                           | valid zones | Coal-burning boiler |            |          |           | Boiler burning light diesel oil | Gas-burning boiler |
|-------------------------------------|---|-------------|---------------------|------------|----------|-----------|---------------------------------|--------------------|
|                                     |   |             | < 7MW               |            | > 7MW    |           |                                 |                    |
|                                     |   |             | Period I            | Period II  | Period I | Period II | all period                      | all period         |
| Soot (mg/m <sup>3</sup> )           | Boiler-in-use                             | A           | 150                 | prohibited | 150      | 80        | 30                              | 10                 |
|                                     |   | B           | 150                 | 100        | 150      | 80        |                                 |                    |
|                                     | Newly-built, enlarged, and altered boiler | B           | 100                 |            | 80       |           |                                 |                    |
| Sulfur dioxide (mg/m <sup>3</sup> ) | Boiler-in-use                             | A           | 400                 | prohibited | 400      | 200       | 50                              | 20                 |
|                                     |   | B           | 400                 | 250        | 400      | 200       |                                 |                    |
|                                     | Newly-built, enlarged, and altered boiler | B           | 250                 |            | 200      |           |                                 |                    |
| Nitric oxide (mg/m <sup>3</sup> )   | Boiler-in-use                             | A           | 400                 | prohibited | 400      | 400       | 300                             | 300                |
|                                     |   | B           | 400                 | 400        | 400      | 400       |                                 |                    |
|                                     | Newly-built, enlarged, and altered boiler | B           | 400                 |            | 400      |           |                                 |                    |
| Smoke blackness (Ringelmen Level)   | All boilers                               | all zones   | Level 1             |            |          |           |                                 |                    |

Note: Restricted soot emission amount of coal-burning boiler in First Type area stipulated in [Quality Standard of Environment and Air] GB3095-1996 is 80mg/m<sup>3</sup>.

**Table 2 Restricted emission amount of air pollutants for thermal power plants (stations)**

| pollutants                       | types of boilers                              | coal-burning boiler |           | boiler burning light diesel oil | gas-burning boiler |
|----------------------------------|---|---------------------|-----------|---------------------------------|--------------------|
|                                  |   | Period I            | Period II |                                 |                    |
| soot mg/m <sup>3</sup>           | boiler-in-use                                 | 100                 | 30        | 30                              | 10                 |
|                                  | enlarged, altered, and under-building boilers | 30                  |           |                                 |                    |
| sulfur dioxide mg/m <sup>3</sup> | boiler-in-use                                 | 1800                | 100       | 50                              | 20                 |
|                                  | enlarged, altered, and under-building boilers | 100                 |           |                                 |                    |
| nitric oxide mg/m <sup>3</sup>   | boiler-in-use                                 | 650                 | 450       | 300                             | 300                |
|                                  | enlarged, altered, and under-building boilers | 450                 |           |                                 |                    |
| smoke blackness                  | Ringelmen blackness (Level)                   | Level 1             |           | Level 1                         | Level 1            |
|                                  | accumulative time (minutes)                   | 6                   |           | --                              | --                 |

a: Prohibited from building new coal-burning power plant (station) boilers.  
 b: Prohibited from newly building, enlarging, or altering boilers burning heavy oil and residue oil. Boilers-in-use burning heavy oil and residue oil are executed as coal-burning boilers.

4.5 Restriction on Lowest Chimney Height

## 4.5.1 Restriction on lowest chimney height of heating boilers used in Industries

Restriction on lowest chimney height of boilers is executed by Table 3. Other cases are executed by 4.6.1.2, 4.6.2, 4.6.3, and 4.6.4 in GB13271.

**Table 3 Restriction on lowest chimney height of coal-burning boilers**

|                                      |       |             |             |           |          |           |
|--------------------------------------|-------|-------------|-------------|-----------|----------|-----------|
| Total loading amount of boiler room  | < 0.7 | 0.7 ~ < 1.4 | 1.4 ~ < 2.8 | 2.8 ~ < 7 | 7 ~ < 14 | 14 ~ < 28 |
| Restriction on lowest chimney height | 20    | 25          | 30          | 35        | 40       | 45        |

## 4.5.2 Restrictions on minimum chimney height in thermal power plants (stations)

Restrictions on minimum chimney height in thermal power plants (stations) are listed in Table 4. Other cases follow 4.6.1.2, 4.6.2, 4.6.3, and 4.6.4 of GB13271.

**Table 4 Minimum allowable chimney height in thermal power plants (stations)**

|  |      |           |      |
|--|------|-----------|------|
| Total loading amount (ten thousand kilowatt) | < 30 | 30 ~ < 60 | > 60 |
| Coal or heavy (residue) oil (m)              | 150  | 180       | 210  |
| Gas, light diesel oil, kerosene (m)          | 30   | 60        |      |

## 5. Monitoring

## 5.1 Monitoring Method

The sampling method of the emission density of soot, sulfur dioxide, and nitric oxide is executed in accordance with stipulations given in GB5468 and GB/T16157. Analysis of sulfur dioxide and nitric oxide is carried out in accordance to the relevant National Environment Protection Agency stipulations.

## 5.2 Conversion of Excessive Air Coefficient

Measured emission density of boiler soot, sulfur dioxide, and nitric oxide is converted according to the excessive air coefficient  $\alpha$  stipulated in Table 5.

**Table 5 Conversion of excessive air coefficient for boilers**

| Types of boilers                    | Conversion item  | Excessive air coefficient |
|-------------------------------------|--|---------------------------|
| Coal-burning boiler                 | Initial emission density of soot                             | =1.7                      |
|                                     | Emission density of soot, sulfur dioxide, and nitric dioxide | =1.8                      |
| Oil-burning and gas-burning boilers | Emission density of soot, sulfur dioxide, and nitric dioxide | =1.2                      |
| Boilers in power plant (station)    | Emission density of soot, sulfur dioxide, and nitric dioxide | =1.4                      |

Conversion formula of excessive air coefficient for boilers:

$$C=C' \times \frac{\alpha}{\alpha'}$$

Note: C = converted emission density of boiler soot, sulfur dioxide, and nitric dioxide; mg/m<sup>3</sup>

C' = measured emission density of boiler soot, sulfur dioxide, and nitric dioxide; mg/m<sup>3</sup>

$\alpha'$  = measured excessive air coefficient

$\alpha$  = stipulated excessive air coefficient

## 5.3 Conversion of Boiler Load Coefficient

In any case where the output of a boiler does not reach full load, the emission density of a measured boiler's soot, sulfur dioxide, and nitric dioxide is re-converted in accordance with the stipulated operative coefficient K of boiler output indicated in Table 6.

**Table 6 Operative coefficient of boiler output**

| Percentage of boiler's actual output by designed output (%) | 70 ~ < 75 | 75 ~ < 80 | 80 ~ < 85 | 85 ~ < 90 | 90 ~ < 95 | > 95 |
|---|-----------|-----------|-----------|-----------|-----------|------|
| Output operative coefficient below 3-year operation         | 1.6       | 1.4       | 1.2       | 1.1       | 1.05      | 1    |
| Output operative coefficient above 3-year operation         | 1.3       | 1.2       | 1.1       | 1         | 1         | 1    |

#### 5.4 Density Conversion of Nitric Oxide

Quality density of nitric oxide stipulated in the standard is calculated by nitric dioxide, i.e., volume density is converted to quality density by  $1\text{mol/mol} \times 10^{-6}$  nitric oxide equals to  $2.05\text{mg/m}^3$ .

#### 5.5 Successive Monitor on Smoke Emission of Boiler

Coal-burning boilers with specified power above 14MW (including 14MW) must install testing apparatus for successive monitor on boiler's smoke emission in accordance with stipulations in HJ/T75 and HJ76. Maintenance and use of testing apparatus must be executed in accordance with related stipulations for environment protection and measurement supervision.

#### 5.6 Restriction on Total Amount of Soot and Sulfur Dioxide

The maximal permitted emission speed rate for thermal power plant (station) is executed by related stipulations in present national emission standard of air pollutants for thermal power plant.

Total emission amount of soot and sulfur dioxide of newly-built, enlarged, and altered boilers should meet the requirement for total amount index of permissible emission of pollutants ratified by municipal environment protection agencies.

#### 6 Execution of Standard

Boilers located in restricted zone for sulfur dioxide must also follow local restriction index for total emission amount in their located restricted zone besides executing this standard for emission of sulfur dioxide.

**Appendix 6**  
**Contacts for Environmental Information in China and Japan**

1. in China (in no particular order)

**(1) Chinese government agencies and other institutions**

- 1) 国家环境保护总局 (State Environmental Protection Administration of China : SEPA)  
No.115 Xizhimeinei Nanxiaojie, Beijing 100035  
URL <http://www.zhb.gov.cn/>
- 2) 北京市环境保护局 (Beijing Municipal Bureau of Environmental Protection)  
No. 14, Chegongzhuang Xilu, Haidian District, Beijing 100044  
URL <http://www.bjepb.gov.cn/> E-mail [webmaster@bjepb.gov.cn](mailto:webmaster@bjepb.gov.cn)
- 3) 天津市环境保护局 (Tianjin Environmental Protection Bureau)  
17 Kangfu Road, Nankai District, Tianjin 300191  
URL <http://www.tjhb.gov.cn/> E-mail [tjhb@nankai.net.cn](mailto:tjhb@nankai.net.cn)
- 4) 中国环境报 (cenews)  
3A Longtan Road, Chongwen District Beijing 100061  
phone +86-10-67122478  
fax +86-10-67113772  
URL <http://www.cenews.com.cn> E-mail [cenv@public3.bta.net.cn](mailto:cenv@public3.bta.net.cn)
- 5) 中国环保商情网 (China-EPA.com)  
phone + 86-10-84638416  
fax + 86-10-84638674  
URL <http://www.china-epa.com/> E-mail [linker@mail.china-epa.com](mailto:linker@mail.china-epa.com)
- 6) 国家环境保护总局环境认证中心 (Environmental Certification Center of SEPA) /  
中环联合认证中心 (China Environmental United Certification Center : CEC)  
No. 1 Yuhuinanlu, Chaoyang District, Beijing 100029  
URL <http://www.sepacec.com/> E-mail [sepacec@sepacec.com](mailto:sepacec@sepacec.com)

**(2) Japanese government agencies and other institutions**

- 1) 日本驻华大使馆 (Embassy of Japan in China)  
北京市建国门外日坛路 7 号  
phone +86-10-6532-2361  
fax +86-10-6532-4625  
URL <http://www.cn.emb-japan.go.jp/jp/01top.htm> E-mail: [info@japan.org.cn](mailto:info@japan.org.cn)
- 2) 中国日本商会 (The Japanese Chamber of Commerce and Industry in China)  
北京市建国门外大街甲 26 号 长富宫公寓 1 层 104 室  
phone +86-10-6513-0829  
fax +86-10-6513-9859  
URL <http://www.cjcci.biz> E-mail [cjcci@postbj.net](mailto:cjcci@postbj.net)
- 3) 中日友好环境保护中心  
(The Sino-Japan Friendship Centre for Environmental Protection)  
北京市朝阳区育慧南路 1 号 中日友好环境保护中心 511 室 日本人专家组  
phone +86-10-8463-4263  
fax +86-10-8462-5053  
URL <http://www.zhb.gov.cn/japan/>

## 2. in Japan (in no particular order)

**(1) Japanese government agencies and other institutions**

- 1) Office of Overseas Environmental Cooperation, Global Environment Bureau,  
Ministry of the Environment  
1-2-2 Kasumigaseki, Chiyoda-ku, Tokyo 100-8975 Japan  
phone +81-3-3581-3351  
fax +81-3-3581-3423  
URL <http://www.env.go.jp/>
- 2) The Japan and Tokyo Chambers of Commerce and Industry, International Division  
3-2-2 Marunouchi, Chiyoda-ku, Tokyo 100-0005 Japan  
phone +81-3-3283-7850  
fax +81-3-3216-6497  
URL <http://www.jcci.or.jp/> (JCCI)  
<http://www.tokyo-cci.or.jp/> (Tokyo-CCI)
- 3) Japan External Trade Organization: JETRO  
2-2-5 Toranomon, Minato-ku, Tokyo 105-8466 Japan  
phone +81-3-3582-5511 / +81-3-3582-1775 (Library)  
URL <http://www.jetro.go.jp/top-j/>
- 4) Institute of Developing Economies : IDE  
3-2-2 Wakaba, Mihama-ku, Chiba-shi, Chiba 261-8545 Japan  
phone +81-43-299-9500  
URL <http://www.ide.go.jp/Japanese/index4.html>
- 5) Japan Bank for International Cooperation  
1-4-1 Otemachi, Chiyoda-ku, Tokyo 100-8144 Japan  
phone +81-3-5218-3101  
fax +81-3-5218-3955  
URL <http://www.jbic.go.jp/>
- 6) Development Bank of Japan  
1-9-1 Otemachi, Chiyoda-ku, Tokyo 100-0004 Japan  
phone +81-3-3244-1900  
URL <http://www.dbj.go.jp/>
- 7) Nippon Keidanren  
1-9-4 Otemachi, Chiyoda-ku, Tokyo 100-8188 Japan  
phone +81-3-5204-1500  
fax +81-3-5255-6233  
URL <http://www.keidanren.or.jp/indexj.html>
- 8) Global Environmental Forum  
Toranomon 10 Mori Bldg. 5th floor, 1-18-1 Toranomon, Minato-ku, Tokyo  
105-0001 Japan  
phone +81-3-3592-9735  
fax +81-3-3592-9737  
URL <http://www.gef.or.jp/>

**(2) Chinese government agencies and other institutions**

- 1) Embassy of the People's Republic of China in Japan  
4-33, Moto-Azabu 3-Chome, Minato-ku, Tokyo 106-0046 Japan  
phone +81-3-3403-3388
- 2) Consular Section of Chinese Embassy  
4-33, Moto-Azabu 3-Chome, Minato-ku, Tokyo 106-0046 Japan  
phone +81-3-3403-3065 / +81-3-3403-0995
- 3) Commercial Section of Chinese Embassy  
5-8-16 Minami-Azabu, Minato-ku, Tokyo 106-0047 Japan  
phone +81-3-3440-2011