

The Nuclear Safety Law of the People's Republic of China¹

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Chapter 1 General Provisions

ARTICLE 1 This law is formulated to ensure nuclear safety, prevent and respond to nuclear accidents, safely use nuclear energy, protect the safety and health of the public and personnel in the industry, protect the ecology and environment, and promote sustainable socio-economic development.

ARTICLE 2 This law applies to activities within the territories and other maritime areas under the jurisdiction of the People's Republic of China concerning the adoption of preventive, protective, mitigating, regulatory, and other safety measures for nuclear facilities, nuclear material, and related radioactive waste; the prevention of nuclear accidents caused by technical factors, human factors, or natural disasters; and the reduction of the radiological consequences of nuclear accidents to the best extent possible.

"Nuclear facility" means:

1. nuclear power plants, nuclear plants generating heat and power, nuclear plants generating steam and heat, and other nuclear power plants and installations;
2. reactors other than nuclear power plants, such as research reactors, experimental reactors, and critical assemblies;
3. nuclear fuel cycle facilities that produce, process, store and reprocess nuclear fuel; and
4. facilities that treat, store and dispose of radioactive waste.

"Nuclear material" means:

1. NOTE: This document is an unofficial English translation of the original Chinese text. It was originally published in NEA (2018), *Nuclear Law Bulletin*, No. 100, OECD, pp. 119-138.

1. uranium-235 and products thereof;
2. uranium-233 and products thereof;
3. plutonium-239 and products thereof; and
4. other nuclear material that is subject to control in accordance with laws and administrative regulations.

“Radioactive waste” means waste that is produced during the operation or decommissioning of a nuclear facility, contains or is contaminated with radionuclides at concentrations or specific activities greater than clearance levels established by the State, and is not foreseen to have a future use.

ARTICLE 3 The State persistently follows a rational, co-ordinated and balanced approach to nuclear safety, enhances the country's capacity for nuclear safety, and ensures the healthy development of the nuclear sector.

ARTICLE 4 Engagement in the nuclear sector must abide by the guiding principle of ensuring safety.

Nuclear safety work must be aligned with the principles of safety first; prevention is key; well-defined responsibilities; strict management; defence-in depth; independent regulation; and comprehensive protection.

ARTICLE 5 The operator of a nuclear facility assumes overall responsibility for nuclear safety.

The suppliers of equipment, engineering, and services to the operator of a nuclear facility shall assume their respective responsibilities.

ARTICLE 6 The nuclear safety regulatory authority under the State Council is responsible for the regulation of nuclear safety.

The competent authority of the nuclear industry, the competent authority for energy, and other relevant authorities under the State Council are responsible for the administration of nuclear safety work within the scope of their respective duties.

The State establishes a mechanism for co-ordinating nuclear safety work and co-ordinates relevant departments under an overall plan to advance work in this area.

ARTICLE 7 The nuclear safety regulatory authority under the State Council works with relevant authorities under the State Council to develop a national nuclear safety plan, submits said plan to the State Council, and implements said plan upon authorisation.

ARTICLE 8 The State shall establish a system of nuclear safety standards at highest and strictest levels.

The relevant authorities under the State Council shall formulate nuclear safety standards in their respective scope of responsibilities. Nuclear safety standards are enforceable standards.

Nuclear safety standards shall be modified in accordance with the development of the economy and society and the advancement of science and technology.

ARTICLE 9 The State formulates a nuclear safety policy and strengthens a nuclear safety culture.

The nuclear safety regulatory authority, the competent authority of the nuclear industry, and the competent authority for energy under the State Council shall establish a mechanism to foster a nuclear safety culture.

The operator of a nuclear facility and its suppliers of equipment, engineering, and services shall actively foster and build a nuclear safety culture that is integrated into every aspect of production, operation, research, and management.

ARTICLE 10 The State encourages and supports the research, development, and utilisation of science and technology related to nuclear safety, strengthens the protection of intellectual property rights, and attaches importance to the cultivation of skilled nuclear safety personnel.

The research plans of relevant authorities under the State Council shall include special projects that study key technologies relevant to the safety of nuclear facilities and material and the monitoring and evaluation of radiation environments; said plans shall promote advanced and reliable technologies for nuclear safety.

The operator of a nuclear facility, its suppliers of equipment, engineering, and services, and scientific research institutions involved in nuclear safety shall continue to develop advanced and reliable technologies for nuclear safety and fully utilise advances in science and technology to increase the level of nuclear safety.

The State Council and the people's governments in provinces, autonomous regions, and municipalities directly under the Central Government shall follow pertinent regulations to grant honours and awards to entities and individuals who have made significant contributions to the innovation of science and technology.

ARTICLE 11 No entity or individual shall compromise the safety of nuclear facilities and nuclear material.

Members of the public, legal persons, and other organisations are entitled to access information about nuclear safety in accordance with the law, and to receive compensation should they suffer nuclear damage.

ARTICLE 12 The State strengthens the security of nuclear facilities and nuclear material.

The operator of a nuclear facility shall establish and perfect security regimes and adopt security measures to prevent the nuclear facility and nuclear material from destruction, damage, and theft.

ARTICLE 13 The State organises international exchanges and co-operation on the subject of nuclear safety, improves mechanisms for international co-operation on nuclear safety, prevents and responds to the threat of nuclear terrorism, and fulfils obligations that have been specified in international conventions entered into or acceded to by the People's Republic of China.

Chapter 2 The Safety of Nuclear Facilities

ARTICLE 14 The State carries out overall planning, scientific demonstrations and reasonable arrangement for the siting and construction of nuclear facilities.

The State takes a category-based approach to the regulation of nuclear facilities, which considers each facility's nature, risk profile, and other factors.

ARTICLE 15 The operator of a nuclear facility shall be capable of ensuring the safe operation of the nuclear facility and shall:

1. have an organisation and management system as well as regimes for quality assurance, safety management, and job responsibility that meet nuclear safety requirements;
2. employ required numbers of qualified technical specialists and management personnel;
3. be capable of conducting safety assessments, allocating resources, and managing finances as required to ensure the safety of the nuclear facility;
4. be capable of supporting and continuing to improve necessary nuclear safety technology;
5. be capable of emergency response and have the financial security to provide compensation for nuclear damage; and
6. be capable of meeting other conditions required by laws and administrative regulations.

ARTICLE 16 The operator of a nuclear facility shall comply with the requirements of laws, administrative regulations, and standards; set up a defence-in-depth system; and effectively protect against threats caused by technical factors, human factors, or natural disasters in order to ensure the safety of the nuclear facility.

The operator of a nuclear facility shall conduct safety assessments of the nuclear facility periodically and submit to reviews by the nuclear safety regulatory authority under the State Council.

ARTICLE 17 The operator of a nuclear facility and its suppliers of equipment, engineering, and services shall establish and implement quality assurance systems; effectively guarantee the quality of the equipment, engineering, and services; and ensure that the performance of the equipment meets the requirements in nuclear safety standards and that the engineering, services, etc. meet the relevant requirements for nuclear safety.

ARTICLE 18 The operator of a nuclear facility shall strictly control exposure to radiation in order to ensure that personnel are not exposed to radiation doses that exceed dose limits prescribed by the State and radiation exposure is kept as low as reasonably achievable.

ARTICLE 19 The operator of a nuclear facility shall monitor the type and concentration of radionuclides in the surrounding environment of the nuclear facility and the total amount of radionuclides in the effluents discharged by the nuclear facility, and shall periodically report the monitoring results to the competent authorities for environmental protection under the State Council and under the people's government in the province, autonomous region, and municipality directly under the Central Government where said nuclear facility is located.

ARTICLE 20 The operator of a nuclear facility shall develop training plans to educate personnel in the industry about nuclear safety, teach them skills, and assess their performance in accordance with national regulations.

The operator of a nuclear facility shall ensure the safety and health of personnel in the industry by providing protective gear and equipment and conducting occupational health checks.

ARTICLE 21 The people's governments in provinces, autonomous regions, and municipalities directly under the Central Government shall protect sites where the State plans to build important nuclear facilities, such as nuclear power plants, and shall not convert the sites to other uses within the planned period.

The people's governments in provinces, autonomous regions, and municipalities directly under the Central Government shall demarcate restricted areas around important nuclear facilities, such as nuclear power plants; said demarcation shall be implemented upon the agreement of the nuclear safety regulatory authority under the State Council.

The building of facilities that produce or store flammable, explosive, or corrosive substances that may threaten the safety of nuclear facilities in planned restricted areas is prohibited; the building of structures that house large numbers of people in the planned restricted areas is also prohibited.

ARTICLE 22 The State establishes a safety licensing regime for nuclear facilities.

The operator of a nuclear facility shall apply to the nuclear safety regulatory authority under the State Council for a licence before engaging in the siting, construction, operation, decommissioning, or other activities of the nuclear facility.

The operator of a nuclear facility shall submit a request to the nuclear safety regulatory authority under the State Council for authorisation if the operator requests that any of the terms specified in the licence be modified.

ARTICLE 23 The operator of a nuclear facility shall scientifically evaluate possible sites for the nuclear facility based on the geology, seismic hazards, climate, hydrology, environment, and population distribution. On the precondition that technical evaluation requirements for nuclear safety are met, the operator shall submit a safety analysis report on the siting of the nuclear facility to the nuclear safety regulatory authority under the State Council. If a review of the report determines that nuclear safety requirements have been met, a written opinion on the review on the siting of the nuclear facility will be issued.

ARTICLE 24 The design of a nuclear facility shall conform to nuclear safety standards; incorporate scientific parameters and technical requirements into structures, systems, and equipment; provide diverse protections and multiple barriers; ensure reliable, stable, and easily manageable operation of the nuclear facility; and meet nuclear safety requirements.

ARTICLE 25 Prior to the construction of a nuclear facility, the operator of said nuclear facility shall submit a construction application with the nuclear safety regulatory authority under the State Council and submit:

1. a nuclear facility construction application;
2. a preliminary safety analysis report;
3. environmental impact assessment documentation;
4. quality assurance documentation; and
5. other materials specified in laws and administrative regulations.

ARTICLE 26 Upon obtaining a nuclear facility construction licence, the operator of the nuclear facility shall ensure that the overall performance of the nuclear facility meets the requirements of nuclear safety standards.

A nuclear facility construction licence shall be valid for no more than ten years. If, upon expiration of the licence, an extension is needed for the construction, a review and authorisation shall be sought from the nuclear safety regulatory authority under the State Council. Exceptions will be granted to those that meet one of the following criteria and have been determined to present no safety risk upon evaluation:

1. the construction of the nuclear facility is delayed due to national policies or actions;
2. the nuclear facility is used for scientific research;
3. the nuclear facility is used for engineering demonstrations; and
4. the nuclear facility is used for spent fuel reprocessing.

After construction of the nuclear facility has been completed, commissioning shall be conducted to verify whether it meets the nuclear safety requirements as designed.

ARTICLE 27 Prior to the first loading of fuel at a nuclear facility, the operator of the nuclear facility shall file an operating application with the nuclear safety regulatory authority under the State Council and submit:

1. a nuclear facility operating application;
2. a final safety analysis report;
3. quality assurance documentation;
4. an emergency plan; and
5. other materials specified in laws and administrative regulations.

Upon obtaining a nuclear facility operating licence, the operator of the nuclear facility shall operate in accordance with the operating licence.

The nuclear facility operating licence shall be valid for the design lifetime of the nuclear facility. While the operating licence is valid, the nuclear safety regulatory authority under the State Council may make reasonable adjustments to items specified in the operating licence in accordance with the requirements of laws, administrative regulations, and new nuclear safety standards.

The operator of a nuclear facility shall seek authorisation from the nuclear safety regulatory authority under the State Council for adjustments to the following items:

1. important structures, systems, and equipment that served as the basis for issuing the operating licence;
2. operational limits and conditions; or
3. procedures and other documentation related to nuclear safety that have been authorised by the nuclear safety regulatory authority under the State Council.

ARTICLE 28 The operator of a nuclear facility that is expected to operate past the expiration date of its operating licence shall apply to the nuclear safety regulatory authority under the State Council for an extension of five years prior to said expiration date, and shall demonstrate and verify whether said nuclear facility conforms to nuclear safety standards. Only nuclear facilities that have been authorised upon review may continue to operate.

ARTICLE 29 Once a nuclear facility stops operating, the operator of the nuclear facility shall conduct shutdown management in a safe manner, maintain safety during the shutdown period, and ensure the basic functions, technical personnel, and documentation required for decommissioning.

ARTICLE 30 Prior to the decommissioning of a nuclear facility, the operator of said nuclear facility shall file a decommissioning application with the nuclear safety regulatory authority under the State Council and submit:

1. a nuclear facility decommissioning application;
2. a safety analysis report;
3. environmental impact assessment documentation;
4. quality assurance documentation; and
5. other materials specified in laws and administrative regulations.

When a nuclear facility is being decommissioned, the operator of the nuclear facility shall treat and dispose of on-site radioactive substances in accordance with the principle of "as low as reasonably achievable," and shall reduce the level of radioactivity in structures, systems, and equipment to meet the requirements of standards.

After a nuclear facility is decommissioned, the competent authority for environmental protection under the people's government in the province, autonomous region, or municipality directly under the Central Government where the nuclear facility is located shall organise the monitoring of the types and concentrations of radionuclides present at the site of said nuclear facility and in the surrounding environment.

ARTICLE 31 The import of a nuclear facility shall meet the requirements of the People's Republic of China's laws, administrative regulations, and standards governing nuclear safety, and shall be subject to the review and authorisation of the nuclear safety regulatory authority under the State Council.

The export of a nuclear facility shall conform to the export control provisions of the People's Republic of China governing nuclear facilities.

ARTICLE 32 The nuclear safety regulatory authority under the State Council shall organise safety technical reviews of applications for nuclear facility safety licences in accordance with statutory conditions and procedures; said authority shall issue a decision granting the licence to nuclear facilities that meet nuclear safety requirements in accordance with the law within twenty days of completing the technical review.

During the licensing processes for nuclear facility construction and operation, the nuclear safety regulatory authority under the State Council shall consult relevant authorities under the State Council and the people's government in the province, autonomous region, or municipality directly under the Central Government where the nuclear facility is located. Said authorities and people's government being consulted shall provide a reply within three months.

ARTICLE 33 In the process of organising safety technical reviews, the nuclear safety regulatory authority under the State Council shall entrust the technical review to technical support entities that do not have a conflict of interest with the entity applying for a licence. Said entrusted technical support entities shall be responsible for the authenticity and accuracy of the conclusions of their technical evaluations.

ARTICLE 34 The nuclear safety regulatory authority under the State Council shall establish a committee of nuclear safety experts to provide advice for decision-making related to nuclear safety.

The committee of nuclear safety experts shall be consulted when formulating nuclear safety plans and standards and making technical decisions on major safety issues related to nuclear facilities.

ARTICLE 35 The State establishes a nuclear safety reporting regime for operators of nuclear facilities; detailed measures are formulated by the relevant authorities under the State Council.

The relevant authorities under the State Council shall establish a nuclear safety experience feedback regime, respond to reported information about nuclear safety in a timely manner, and share information.

The operator of a nuclear facility shall establish a nuclear safety experience feedback system.

ARTICLE 36 Entities that provide nuclear facilities with design, manufacturing, installation, and non-destructive testing services for nuclear safety equipment shall apply to the nuclear safety regulatory authority under the State Council for a licence. Overseas organisations that provide domestic nuclear facilities with design, manufacturing, installation, and non-destructive testing services for nuclear safety equipment shall register with the nuclear safety regulatory authority under the State Council.

The nuclear safety regulatory authority under the State Council conducts safety inspections on imported nuclear safety equipment in accordance with the law.

ARTICLE 37 The operating personnel of a nuclear facility and specialised technicians, such as welders and non-destructive testers, who work with nuclear safety equipment, shall obtain qualifications as required by the State.

The operator of a nuclear facility and entities that provide manufacturing, installation, or non-destructive testing services for nuclear safety equipment shall hire personnel who have obtained appropriate qualifications to perform specialised technical work that concerns the safety of the nuclear facility.

Chapter 3 The Safety of Nuclear Material and Radioactive Waste

ARTICLE 38 The operator of a nuclear facility and other relevant entities shall obtain licences in accordance with required conditions to possess nuclear material; they shall prevent the theft, damage, loss, unlawful transfer, and unlawful use of nuclear material and ensure the safety and lawful use of nuclear material by adopting the following measures:

1. establishing an organisation or assigning personnel to be the designated custodian(s) of nuclear material;
2. establishing a nuclear material accounting regime to maintain consistency in nuclear material inventories;
3. establishing a physical protection system that is consistent with the level of protection needed for the nuclear material;
4. establishing a regime to safeguard confidential information and adopting measures to maintain confidentiality; and
5. other measures specified in laws and administrative regulations.

ARTICLE 39 Parties that produce, store, transport, and reprocess spent fuel shall take measures to ensure the safety of spent fuel, and shall assume responsibility for the nuclear safety of spent fuel in their possession.

ARTICLE 40 The disposal of radioactive waste shall be category-based.

Low and intermediate level radioactive waste undergoes near-surface or intermediate-depth disposal at locations specified by the State in compliance with nuclear safety standards.

High level radioactive waste undergoes centralised deep geological disposal, which is handled exclusively by entities designated by the State Council.

ARTICLE 41 Nuclear facility operators and entities that treat and dispose of radioactive waste shall minimise and neutralise radioactive waste in the treatment and disposal processes in order to ensure permanent safety.

ARTICLE 42 The competent authority of the nuclear industry under the State Council works with other relevant authorities under the State Council and with the people's governments in provinces, autonomous regions, and municipalities directly under the Central Government to develop siting plans for low and intermediate level radioactive waste disposal, and organises the implementation of said plans upon their authorisation by the State Council.

The competent authority of the nuclear industry under the State Council works with other relevant authorities under the State Council to develop siting plans for high level radioactive waste disposal, and organises the implementation of said plans upon their authorisation by the State Council.

The construction of radioactive waste disposal sites shall meet the requirements for the development of nuclear energy.

ARTICLE 43 The State shall establish a licensing regime for radioactive waste management.

Entities that specialise in the treatment, storage, and disposal of radioactive waste shall apply to the nuclear safety regulatory authority under the State Council for a licence.

The operator of a nuclear facility that uses the nuclear facility's own supporting treatment and storage facilities for the treatment and storage of radioactive waste generated by said nuclear facility does not need to apply for a licence.

ARTICLE 44 The operator of a nuclear facility shall treat the solid radioactive waste that it generates and the liquid radioactive waste that it cannot clean and discharge, convert them into stable and standardised solid waste, and then promptly deliver said stable and standardised solid waste to a radioactive waste disposal entity for disposal.

The operator of a nuclear facility shall treat the gaseous radioactive waste that it generates and discharge the treated waste only after the national standards for the prevention and control of radioactive pollution have been met.

ARTICLE 45 Radioactive waste disposal entities shall dispose of radioactive waste that they receive in accordance with the national standards for the prevention and control of radioactive pollution.

Radioactive waste disposal entities shall establish a record archive to document radioactive waste disposals, and shall faithfully record information related to their disposal activities, including the source, quantity, characteristics,

and storage location of the radioactive waste. The record archive shall be retained permanently.

ARTICLE 46 The State shall establish a closure regime for radioactive waste disposal facilities.

A radioactive waste disposal facility shall follow closure procedures in accordance with the law and set up permanent signs in demarcated areas if said facility meets any of the following criteria:

1. the design life for service has expired;
2. the design capacity for radioactive waste disposal has been reached;
3. conditions in the area, including the geological structure and hydrogeology, have significantly changed so as to render it inappropriate to continue radioactive waste disposal; and
4. laws and administrative regulations otherwise require the facility to close.

ARTICLE 47 Prior to the closure of a radioactive waste disposal facility, the radioactive waste disposal entity shall develop a safety management plan for the closure and submit it to the nuclear safety regulatory authority under the State Council for authorisation.

The safety management plan shall include:

1. personnel responsible for safety management and their duties;
2. costs for safety management;
3. measures for safety management; and
4. a timeframe for safety management.

After the closure of a radioactive waste disposal facility, the safety management of said facility shall be conducted by the radioactive waste disposal entity in accordance with the authorised safety management plan; upon the authorisation of the nuclear safety regulatory authority under the State Council working with other relevant authorities under the State Council, the administration of the management will be handed over to the people's government in the province, autonomous region, or municipality directly under the Central Government.

ARTICLE 48 The operator of a nuclear facility shall pay for the treatment and disposal of spent fuel as required by the State, and said cost shall be included in production costs.

The operator of a nuclear facility shall accrue the expenses of decommissioning the nuclear facility and disposing of radioactive waste; said expenses shall be included in the investment budgetary estimate and production costs, and shall be specifically used for decommissioning said nuclear facility and disposing of radioactive waste. Specific measures are formulated by the finance authority and the competent pricing authority under the State Council in collaboration with the nuclear safety regulatory authority, the competent authority of the nuclear industry, and the competent authority for energy under the State Council.

ARTICLE 49 The State takes a category-based approach to the regulation of the transport of nuclear material and radioactive waste and adopts effective measures to ensure the safety of transport.

ARTICLE 50 The State safeguards the transport of nuclear material and radioactive waste by road, rail, and water; the relevant authorities under the State Council shall strengthen the administration of transport by road, rail, and water, and shall formulate specific safeguard measures.

ARTICLE 51 The competent authority of the nuclear industry under the State Council is responsible for co-ordinating the administration of the transport of spent fuel, and oversees relevant confidentiality measures.

The public security authority supervises the physical protection of nuclear material and radioactive waste that are transported by road, and acts in accordance with the law to handle accidents that may jeopardise the safe transport of nuclear material and radioactive waste. The transport of nuclear material and radioactive waste by road shall be reported for authorisation to the public security authorities of the people's governments at the county level and above that govern the area where the shipment originates in accordance with the authority's competence; the transport of spent fuel or high level radioactive waste shall be reported to the public security authority under the State Council for authorisation.

The nuclear safety regulatory authority under the State Council is responsible for authorising licence applications for containers that are used to transport nuclear material and radioactive waste.

ARTICLE 52 The consignor of nuclear material and radioactive waste shall take effective measures for radiological protection and security during transport, and shall be responsible for nuclear safety during transport.

The consignor of spent fuel and high level radioactive waste shall submit relevant nuclear safety analysis reports to the nuclear safety regulatory authority under the State Council, and shall begin transport activities only after undergoing a review and receiving authorisation.

The carrier of nuclear material and radioactive waste shall obtain transport qualifications as required by the State in accordance with the law.

ARTICLE 53 For aspects not specified in this law concerning the transport of nuclear material and radioactive waste by road, rail, and water, the relevant laws, administrative regulations, and rules that govern the transport of radioactive items and dangerous goods apply.

Chapter 4 Emergency Response to Nuclear Accidents

ARTICLE 54 The State has established the National Nuclear Accident Emergency Coordination Committee to organise and co-ordinate the emergency management of nuclear accidents nationwide.

The people's governments in provinces, autonomous regions, and municipalities directly under the Central Government establish Nuclear Accident Emergency Coordination Committees based on their actual needs to organise and co-ordinate the emergency management of nuclear accidents in their respective administrative areas.

ARTICLE 55 The competent authority of the nuclear industry under the State Council shall assume the day-to-day work of the National Nuclear Accident Emergency Coordination Committee, take the lead in formulating a national emergency plan for nuclear accidents, and organise the implementation of said plan upon its authorisation by the State Council. In accordance with the deployment specified in the national emergency plan for nuclear accidents,

member entities of the National Nuclear Accident Emergency Coordination Committee formulate their own emergency plans for nuclear accidents, and file said plans with the competent authority of the nuclear industry under the State Council.

Authorities designated by the people's governments in provinces, autonomous regions, and municipalities directly under the Central Government assume the day-to-day work of the Nuclear Accident Emergency Coordination Committee; are responsible for formulating emergency plans for nuclear accidents that occur off-site within their respective administrative areas; and organise the implementation of said plans upon their review and authorisation by the National Nuclear Accident Emergency Coordination Committee.

The operator of a nuclear facility is responsible for formulating an emergency plan for on-site nuclear accidents; said plan is filed with the competent authority of the nuclear industry and the competent authority for energy under the State Council, and with the authorities designated by the people's government in the province, autonomous region, or municipality directly under the Central Government.

In accordance with the requirements of the State Council and the Central Military Commission, the Chinese People's Liberation Army and the Chinese People's Armed Police Force formulate emergency work plans for nuclear accidents that occur in localities supported by their respective systems, and file said plans with the competent authority of the nuclear industry under the State Council.

The entity that formulates an emergency plan shall revise said plan in a timely manner according to actual needs and changing circumstances.

ARTICLE 56 The operator of a nuclear facility shall furnish the facility with emergency equipment and conduct training and drills for emergency workers in accordance with the emergency plan in order to be prepared for emergencies.

The authorities designated by the people's government in the province, autonomous region, or municipality directly under the Central Government where the nuclear facility is located shall raise public awareness about emergency response to nuclear accidents, and shall organise relevant businesses, institutions, and communities to participate in emergency drills for nuclear accidents in accordance with the emergency plan.

ARTICLE 57 The State establishes a reserve fund regime for emergency response to nuclear accidents in order to ensure sufficient funds for nuclear accident emergency work. The administrative rules of said nuclear accident emergency reserve fund are formulated by the State Council.

ARTICLE 58 The State takes a graded approach to the regulation of emergency response to nuclear accidents.

In the event of a nuclear accident, the operator of a nuclear facility shall respond to emergencies and mitigate the consequences of the nuclear accident in accordance with the requirements of the emergency plan; immediately report the condition of said nuclear facility to the competent authority of the nuclear industry and the nuclear safety regulatory authority under the State Council, and to the authorities designated by the people's government in the province, autonomous region, or municipality directly under the Central Government; and recommend off-site emergency response actions as needed.

ARTICLE 59 The National Nuclear Accident Emergency Coordination Committee organises and co-ordinates the relevant authorities under the State Council, local people's governments, and the operators of nuclear facilities to carry out emergency rescue operations in the event of nuclear accidents in accordance with the deployment in the national emergency plan for nuclear accidents.

As required by the State Council and the Central Military Commission, the Chinese People's Liberation Army and the Chinese People's Armed Police Force carry out emergency rescue operations in the event of nuclear accidents.

The operator of a nuclear facility shall carry out work in support of emergency response in accordance with the requirements of emergency rescue operations in the event of nuclear accidents.

ARTICLE 60 The competent authority of the nuclear industry under the State Council or the authorities designated by the people's governments in provinces, autonomous regions, and municipalities directly under the Central Government are responsible for releasing information about emergency response to nuclear accidents.

The National Nuclear Accident Emergency Coordination Committee co-ordinates international notification and international rescue operations for emergency response to nuclear accidents under an overall plan.

ARTICLE 61 All levels of people's governments, their relevant authorities, operators of nuclear facilities, and others shall organise post-nuclear-accident work, such as recovery operations and loss assessments, in accordance with the relevant requirements and authorisations of the State Council.

The State Council or its authorised authority is responsible for carrying out investigations of nuclear accidents.

The State Council or its designated agency is responsible for carrying out investigations of emergency actions for off-site nuclear accidents.

ARTICLE 62 Emergencies related to the transport of nuclear material and radioactive waste shall be incorporated into the emergency plans for off-site nuclear accidents or the emergency plans for radiation in the provinces, autonomous regions, and municipalities directly under the Central Government on the transport routes of said material and waste. The people's governments in provinces, autonomous regions, and municipalities directly under the Central Government are responsible for emergency response to nuclear accidents that occur within their administrative areas.

Chapter 5 Information Disclosure and Public Participation

ARTICLE 63 The relevant authorities under the State Council and the authorities designated by the people's governments in provinces, autonomous regions, and municipalities directly under the Central Government where the nuclear facilities are located shall disclose information related to nuclear safety within the scope of their respective duties in accordance with the law.

The nuclear safety regulatory authority under the State Council shall, in accordance with the law, disclose information about administrative licences related to nuclear safety and other information, such as supervision and inspection reports on activities related to nuclear safety, overall safety status, environmental quality as measured by radiation levels, and nuclear accidents.

The State Council shall report the nuclear safety situation to the Standing Committee of the National People's Congress periodically.

ARTICLE 64 The operator of a nuclear facility shall disclose information such as its nuclear safety regime and related documentation, nuclear facility safety status, radiation monitoring data on discharged effluents and the surrounding environment, and annual nuclear safety reports. Specific measures are formulated by the nuclear safety regulatory authority under the State Council.

ARTICLE 65 Nuclear safety information disclosed in accordance with the law shall be made available to the public in a timely manner through government announcements, websites, and other channels that are easily accessible to the public.

Members of the public, legal persons, and other organisations may apply to the nuclear safety regulatory authority under the State Council and the authorities designated by the people's governments in provinces, autonomous regions, and municipalities directly under the Central Government where nuclear facilities are located in order to obtain information related to nuclear safety in accordance with the law.

ARTICLE 66 The operator of a nuclear facility shall consult stakeholders on major nuclear safety matters involving the public interest through questionnaires, hearings, discussions, symposiums, or other formats, and shall provide feedback in appropriate formats.

The people's governments in provinces, autonomous regions, and municipalities directly under the Central Government where nuclear facilities are located shall consult stakeholders on major nuclear safety matters affecting the public interest through hearings, discussions, symposiums, or other formats, and shall provide feedback in appropriate formats.

ARTICLE 67 The operator of a nuclear facility shall adopt the following measures to conduct nuclear safety awareness activities:

1. opening the nuclear facility to the public in an orderly manner on the precondition of ensuring the safety of the nuclear facility;
2. co-operating with schools to educate students about nuclear safety;
3. developing venues to publicise nuclear safety, and printing and disseminating publicity materials about nuclear safety; and
4. other measures specified in laws and administrative regulations.

ARTICLE 68 Members of the public, legal persons, and other organisations are entitled to notify the nuclear safety regulatory authority and other relevant authorities under the State Council about the existence of potential nuclear safety hazards or violations of laws and administrative regulations on nuclear safety.

Members of the public, legal persons, and other organisations shall not fabricate or disseminate false information about nuclear safety.

ARTICLE 69 The disclosure of government information that relates to state secrets, trade secrets, and personal information is conducted in accordance with relevant requirements of the State.

Chapter 6 Supervision and Inspection

ARTICLE 70 The State establishes a supervision and inspection regime for nuclear safety.

The nuclear safety regulatory authority and other relevant authorities under the State Council shall supervise and inspect entities engaged in nuclear safety activities to determine their compliance with laws, administrative regulations, rules, and standards that govern nuclear safety.

The nuclear safety regulatory authority under the State Council may establish agencies in geographical areas where nuclear facilities are concentrated. The nuclear safety regulatory authority under the State Council or its agencies shall dispatch supervision and inspection personnel to sites where nuclear facilities are under construction, in operation, being decommissioned, or engaging in other activities to supervise and inspect nuclear safety.

ARTICLE 71 The nuclear safety regulatory authority and other relevant authorities under the State Council shall strengthen their capacity to regulate nuclear safety and raise regulatory standards for nuclear safety.

The nuclear safety regulatory authority under the State Council shall organise the research and development of regulatory technology for nuclear safety, and shall maintain the ability to conduct technical evaluations that are compatible with nuclear safety regulation.

ARTICLE 72 The nuclear safety regulatory authority and other relevant authorities under the State Council have the authority to take the following measures when conducting supervisory work and inspections on nuclear safety:

1. entering a site to conduct monitoring, inspections, or verifications;
2. accessing relevant documentation, materials, and records;
3. accessing relevant personnel in the course of investigating and gathering information; and
4. demanding corrective actions at the site for issues discovered.

The nuclear safety regulatory authority and other relevant authorities under the State Council shall form reports based on their supervisory work and inspections, and shall establish an archive.

ARTICLE 73 Entities that engage in nuclear safety activities shall offer their co-operation, make truthful explanations, and provide necessary materials to the nuclear safety regulatory authority and other relevant authorities under the State Council in the course of their supervisory work and inspections conducted in accordance with the law; said entities shall not refuse or obstruct the supervisory work or inspections.

ARTICLE 74 Nuclear safety supervision and inspection personnel shall be devoted to their duty, diligent and conscientious about their work, and impartial when enforcing the law.

Nuclear safety supervision and inspection personnel shall possess the necessary expertise and professional capabilities to conduct supervisory work and inspections, and shall receive training periodically.

Nuclear safety supervision and inspection personnel shall produce valid qualifications in the course of their supervisory work and inspections, and shall maintain the confidentiality of state secrets, trade secrets, and personal information that becomes known to them in accordance with the law.

Chapter 7 Legal Liability

ARTICLE 75 If any of the following violations of this law occur, disciplinary action will be taken against the directly responsible supervisor and other directly responsible personnel in accordance with the law:

1. the nuclear safety regulatory authority or other relevant authorities under the State Council fail to review and authorise licence applications in accordance with the law;
2. the relevant authorities under the State Council or the authorities designated by the people's government in the province, autonomous region, or municipality directly under the Central Government where the nuclear facility is located fail to disclose relevant information about nuclear safety in accordance with the law;
3. the people's government in the province, autonomous region, or municipality directly under the Central Government where the nuclear facility is located fails to consult stakeholders on major nuclear safety matters affecting the public interest;
4. the nuclear safety regulatory authority or other relevant authorities under the State Council fail to form reports based on their supervisory work and inspections, or fail to establish an archive;
5. nuclear safety supervision and inspection personnel fail to produce valid qualifications in the course of their supervisory work and inspections, or fail to maintain the confidentiality of state secrets, trade secrets, and personal information that becomes known to them in accordance with the law; and
6. the nuclear safety regulatory authority or other relevant authorities under the State Council and relevant authorities of the people's governments in provinces, autonomous regions, and municipalities directly under the Central Government act in other ways that abuse their authority, neglect their duties, seek personal gain, or engage in fraud.

ARTICLE 76 Those whose actions constitute a violation of this law and of public security administration, such as threatening the safety of nuclear facilities and nuclear material or fabricating and disseminating false information about nuclear safety, will be subject to public security penalties by the public security authority in accordance with the law.

ARTICLE 77 If any of the following violations of this law occur, corrective measures will be ordered and a warning will be issued by the nuclear safety regulatory authority or other relevant authorities under the State Council; in serious cases, a fine of not less than 200 000 yuan nor more than 1 000 000 yuan will be imposed; those who refuse to take corrective measures will be ordered to halt construction or suspend operations for rectification:

1. the operator of a nuclear facility fails to set up a defence-in-depth system for the nuclear facility;
2. the operator of a nuclear facility or its suppliers of equipment, engineering, and services fail to establish or implement a quality assurance system;
3. the operator of a nuclear facility fails to control exposure to radiation at doses that meet requirements;

4. the operator of a nuclear facility fails to establish a nuclear safety experience feedback system; and
5. the operator of a nuclear facility fails to consult stakeholders on major nuclear safety matters affecting the public interest.

ARTICLE 78 If, in violation of this law, facilities that produce or store flammable, explosive, and corrosive substances that may threaten the safety of nuclear facilities are built in planned restricted areas, or structures that house large numbers of people are built in planned restricted areas, the dismantling of said facilities and structures and the restoration of said areas to their original state within a specified timeframe will be ordered by the nuclear safety regulatory authority under the State Council, and a fine of not less than 100 000 yuan nor more than 500 000 yuan will be imposed.

ARTICLE 79 If any of the following violations of this law by the operator of a nuclear facility occur, corrective measures will be ordered by the nuclear safety regulatory authority under the State Council, and a fine of not less than 1 000 000 yuan nor more than 5 000 000 yuan will be imposed; those who refuse to take corrective measures will be ordered to halt construction or suspend operations for rectification; those who have received illegal proceeds will have said proceeds forfeited; those who have polluted the environment will be ordered to implement pollution abatement measures to eliminate the pollution within a specified timeframe, and those who fail to implement the measures within the specified timeframe will be assigned a capable entity to implement the measures on their behalf and will be required to cover all costs; a fine of not less than 50 000 yuan nor more than 200 000 yuan will be imposed on the directly responsible supervisor and other directly responsible personnel:

1. engaging in the construction, operation, or decommissioning of a nuclear facility without a licence;
2. modifying terms specified in the licence documentation without obtaining the required licence for doing so;
3. continuing to operate a nuclear facility after the expiration date of said facility's operating licence without undergoing a review and receiving authorisation; and
4. importing a nuclear facility without a review and authorisation.

ARTICLE 80 If any of the following violations of this law by the operator of a nuclear facility occur, corrective measures will be ordered and a warning will be issued by the nuclear safety regulatory authority under the State Council; in serious cases, a fine of not less than 500 000 yuan nor more than 2 000 000 yuan will be imposed; those who have polluted the environment will be ordered to implement pollution abatement measures to eliminate the pollution within a specified timeframe, and those who fail to implement the measures within the specified timeframe will be assigned a capable entity to implement the measures on their behalf and will be required to cover all costs:

1. failing to conduct safety assessments of the nuclear facility periodically, or failing to submit to reviews by the nuclear safety regulatory authority under the State Council.
2. failing to manage the shutdown of the nuclear facility in a safe manner after its operation has been terminated, or failing to ensure the basic functions, technical personnel, and documentation required for decommissioning;

3. failing to reduce the level of radioactivity in structures, systems, and equipment to meet the requirements of standards when the nuclear facility is being decommissioned;
4. failing to convert the solid radioactive waste that the nuclear facility generates into stable and standardised solid waste, failing to convert the liquid radioactive waste that the nuclear facility cannot clean and discharge into stable and standardised solid waste, or failing to deliver said stable and standardised solid waste to a radioactive waste disposal entity for disposal in a timely manner; and
5. failing to treat the gaseous radioactive waste that the nuclear facility generates, or failing to meet the national standards for the prevention and control of radioactive pollution before discharging the treated waste.

ARTICLE 81 If, in violation of this law, the operator of a nuclear facility fails to monitor the type and concentration of radionuclides in the surrounding environment and the amount of radionuclides in the effluents discharged by the nuclear facility, or fails to report the monitoring results periodically, corrective measures will be ordered by the competent authority for environmental protection under the State Council or of the people's government in the province, autonomous region, or municipality directly under the Central Government where said nuclear facility is located, and a fine of not less than 100 000 yuan nor more than 500 000 yuan will be imposed.

ARTICLE 82 If, in violation of this law, an entrusted technical support entity issues false technical evaluation conclusions, a fine of not less than 200 000 yuan nor more than 1 000 000 yuan will be imposed by the nuclear safety regulatory authority under the State Council; those who have received illegal proceeds will have said proceeds forfeited; a fine of not less than 100 000 yuan nor more than 200 000 yuan will be imposed on the directly responsible supervisor and other directly responsible personnel.

ARTICLE 83 If any of the following violations of this law occur, corrective measures will be ordered by the nuclear safety regulatory authority under the State Council, and a fine of not less than 500 000 yuan nor more than 1 000 000 yuan will be imposed; those who have received illegal proceeds will have said proceeds forfeited; a fine of not less than 20 000 yuan nor more than 100 000 yuan will be imposed on the directly responsible supervisor and other directly responsible personnel:

1. providing a nuclear facility with design, manufacturing, installation, or non-destructive testing services for nuclear safety equipment without a licence; and
2. an overseas organisation provides a domestic nuclear facility with design, manufacturing, installation, or non-destructive testing services for nuclear safety equipment without registering.

ARTICLE 84 If, in violation of this law, the operator of a nuclear facility or entities that provide manufacturing, installation, or non-destructive testing services for nuclear safety equipment hire personnel who have not obtained appropriate qualifications to perform specialised technical work that concerns the safety of the nuclear facility, corrective measures will be ordered by the nuclear safety regulatory authority under the State Council, and a fine of not less than 100 000 yuan nor more than 500 000 yuan will be imposed; those who refuse to take corrective measures will have their licences suspended or revoked, and a

fine of not less than 20 000 yuan nor more than 100 000 yuan will be imposed on the directly responsible supervisor and other directly responsible personnel.

ARTICLE 85 Nuclear material possessed without a licence in violation of this law will be subject to forfeiture by the competent authority of the nuclear industry under the State Council, and a fine of not less than 100 000 yuan nor more than 500 000 yuan will be imposed; those who have received illegal proceeds will have said proceeds forfeited.

ARTICLE 86 If any of the following violations of this law occur, corrective measures will be ordered by the nuclear safety regulatory authority under the State Council, and a fine of not less than 100 000 yuan nor more than 500 000 yuan will be imposed; in serious cases, a fine of not less than 500 000 yuan nor more than 2 000 000 yuan will be imposed; those who have polluted the environment will be ordered to implement pollution abatement measures to eliminate the pollution within a specified timeframe, and those who fail to implement the measures within the specified timeframe will be assigned a capable entity to implement the measures on their behalf and will be required to cover all costs:

1. engaging in the treatment, storage, and disposal of radioactive waste without a licence;
2. failing to establish a record archive to document radioactive waste disposals, failing to faithfully record information related to the disposal activities, or failing to retain the record archive permanently;
3. failing to follow the closure procedures in accordance with the law for a radioactive waste disposal facility that should be closed;
4. failing to set up permanent signs in demarcated areas for the closure of a radioactive waste disposal facility;
5. failing to develop a safety management plan for the closure of a radioactive waste disposal facility; and
6. failing to conduct safety management in accordance with the authorised safety management plan after a radioactive waste disposal facility has been closed.

ARTICLE 87 If any of the following violations of this law by the operator of a nuclear facility occur, corrective measures will be ordered by the nuclear safety regulatory authority under the State Council, and a fine of not less than 100 000 yuan nor more than 500 000 yuan will be imposed; a fine of not less than 20 000 yuan nor more than 50 000 yuan will be imposed on the directly responsible supervisor and other directly responsible personnel:

1. failing to formulate an emergency plan for on-site nuclear accidents as required;
2. failing to furnish the nuclear facility with emergency equipment in accordance with the emergency plan, or failing to conduct training or drills for emergency workers; and
3. failing to carry out work in support of emergency response in accordance with the requirements of emergency rescue operations in the event of nuclear accidents.

ARTICLE 88 If, in violation of this law, the operator of a nuclear facility fails to disclose relevant information as required, corrective measures will be ordered by the nuclear safety regulatory authority under the State Council; for those who

refuse to take corrective measures, a fine of not less than 100 000 yuan nor more than 500 000 yuan will be imposed.

ARTICLE 89 If, in violation of this law, an entity engaged in nuclear safety activities refuses or obstructs the supervisory work and inspections conducted in accordance with the law by the nuclear safety regulatory authority or other relevant authorities under the State Council, corrective measures will be ordered by the nuclear safety regulatory authority or other relevant authorities under the State Council, and a fine of not less than 100 000 yuan nor more than 500 000 yuan may be imposed; those who refuse to take corrective measures will have their licences suspended or revoked; those whose actions constitute a violation of public security administration will be subject to public security penalties by the public security authority in accordance with the law.

ARTICLE 90 In the event of a nuclear accident, the operator of a nuclear facility concerned shall be liable for bodily injury, death, property loss, or environmental damage caused by the accident in accordance with the national nuclear damage liability regime, unless it can be proven that the damage was caused by wars, armed conflicts, riots, or other circumstances.

The suppliers of equipment, engineering, and services, among others, to the operator of a nuclear facility are not liable for nuclear damage. If the operator of a nuclear facility has an agreement with said suppliers, the operator may seek recourse in accordance with the agreement after it has assumed liability for the damage.

The operator of a nuclear facility shall maintain adequate financial security by purchasing liability insurance, participating in mutual assistance programmes, and adopting other means in order to ensure the prompt and effective fulfilment of its liability for nuclear damage.

ARTICLE 91 Any violation of this law that constitutes a criminal offence will be investigated for criminal liability in accordance with the law.

Chapter 8 By-laws

ARTICLE 92 Nuclear safety for the defence industry and military affairs is specified separately by the State Council and the Central Military Commission in accordance with the principles stated in this law.

ARTICLE 93 For the purpose of this law:

“Nuclear accident” means one or a series of radioactive, toxic, explosive, or otherwise harmful accidents that involve nuclear fuel, radioactive products, or radioactive waste in a nuclear facility, or that involve the nuclear material transported into or out of a nuclear facility.

“Defence-in-depth” means the prevention of nuclear accidents and mitigation of their consequences by creating a series of progressively hierarchical and mutually independent protections, mitigating measures, or physical barriers.

“Operator of a nuclear facility” means an entity within the People’s Republic of China that applies for or possesses a nuclear facility safety licence and is allowed to run and operate a nuclear facility.

“Nuclear safety equipment” means equipment used to perform nuclear safety functions in a nuclear facility, including mechanical and electrical equipment for nuclear safety.

“Spent fuel” means nuclear fuel permanently removed from a reactor core following irradiation in the core.

“Shutdown” means that a nuclear facility has terminated operations and will no longer be started up.

“Decommissioning” means taking measures, such as decontamination, dismantling, and removal, to reduce the radioactivity of a site or equipment that a nuclear facility no longer uses to a level that meets the requirements of relevant national standards for radiation doses.

“Experience feedback” means the summarisation and promotion of good practices through the collection, screening, assessment, analysis, processing, and distribution of information related to a nuclear facility, including events, quality issues, and good practices, in order to prevent similar events and issues from occurring again.

“Consignor” means an entity within the People’s Republic of China that has applied and been authorised to prepare consignments and submit them for transport.

ARTICLE 94 This law will enter into force on 1 January 2018.