

LAW NO. (43) FOR THE YEAR 2007

RADIATION PROTECTION , AND NUCLEAR SAFETY AND SECURITY LAW

Article 1: This law may be cited as radiation protection, and nuclear safety and security law for the year 2007 and shall enter into force on the date of its publication in the Official Gazette.

Article 2: The following words and terms, whenever mentioned in this Law, shall have the meanings indicated hereunder unless the context indicates otherwise:

The Commission : The Commission established according to the terms of this law, for regulating the radiation and nuclear work.

The Board : The Board of Directors of the Commission.

Director General : Director General of the Commission.

Nuclear Energy : Energy generated as a result of nuclear fission, fusion, or any other nuclear reactions producing energy used for different purposes such as generating electricity, water desalination and production of radioisotopes for medical, industrial, agricultural and other applications.

The Facility : a nuclear installation or a radiation facility including; the land, structures and equipment, for production, processing, use, treatment, storage or disposing of nuclear or radioactive materials.

Ionizing Radiation : Electromagnetic or particle radiation which causes ionization to material when exposed to it.

Radiation Sources : materials or devices that emit or can emit ionizing radiation.

- Radiation work** : The work in a field related to radiation sources.
- Exposure** : a measure for the amount of energy of which the air absorbs of the ionizing radiation when passing through whether the exposure was external or internal.
- Radiation Protection:** the measures and means that guarantee the protection of people and environment from exposure to ionizing radiation or radioactive materials including the use of different equipment and devices to reduce the radiation risks and doses to a minimum permissible value below the accepted dose.
- Nuclear Safety** : measures intended to prevent the likelihood of accidents involving radioactive sources and, should such an accident occur, to mitigate its consequences.
- Nuclear Security** : measures to prevent unauthorized access or damage to, and loss, theft or unauthorized transfer of radioactive sources.
- Licensing** : the authorization or approval to the person to establish or operate a facility, import, export, use, possess, produce, transport, store, destruct, or dispose of radioactive sources to allow individuals and institutions to work with radiation in accordance with the provisions of this law and the regulations and instructions issued hereunder.
- Permit** : Permission granted to a person delegating to him limited responsibilities related to allowing him to provide specific facilitations and services to enable the licensee to acquire or use radiation sources..

Radioactive Waste : Any radioactive materials, which are the waste product of radiation practices for which no further use is anticipated, or any substance which is radioactively contaminated beyond clearance levels.

- Article 3:**
- a. A Commission shall be established in the kingdom under the name Radiation and Nuclear Regulatory Commission, being legal entity, financially, and administratively independent, and as such carries out all legal actions to achieve its objectives, including the possession of movable and immovable properties, enter into contracts and loans and accepting aid, donations, contributions, and grants. It shall have the right to litigation in the legislature judicial proceedings and has the right to appoint the civil attorney general as its representative in the courts or any other lawyer for such purposes.
 - b. The Commission shall be linked to the Prime Minister.
 - c. The Commission headquarters shall be in Amman with the right to establish branches or offices in any place of the Kingdom.

- Article 4:** The Commission in coordination and cooperation with relevant authorities aims to achieve the following:
- a. Regulate and control the use of nuclear energy and ionizing radiation.
 - b. Protect the environment, human health and property from the hazards of contamination and exposure to ionizing radiation in accordance with the provisions of this law.
 - c. Ensure the fulfilment of requirements of public safety, radiation protection, and nuclear safety and security.

- Article 5:** Subject to what is stipulated in Article (4) of this law the Commission shall undertake the following duties and powers:
- a. Granting licenses and permits for radiation institutions, nuclear facilities, and workers in the radiation and nuclear fields.
 - b. Check up of the commitment of the licensees to implement the terms of this law, and regulations and instructions issued accordingly.
 - c. Control on the implementation of the terms of this law and conduct inspection for any installation or body for this purpose.
 - d. Contact institutions and commissions concerned with regulating and control of nuclear energy, radiation protection, and nuclear safety and security in the Arab

and foreign countries to benefit from the expertise, scientific research, and assistance in their field of work.

- e. Participate in Arab, regional and international projects concerned with nuclear energy, radiation protection, and nuclear safety and security, related to expertise or research with the consent of the cabinet.
- f. Regulate relations between Jordanian entities concerned with radiation protection, and nuclear safety and security; and relevant international, regional and Arab organizations and agencies.
- g. Implement comprehensive safeguards, and create a system to account for and control of all nuclear materials subject to these safeguards.

Article 6:

- a. The Commission shall be supervised by the Board of Directors under the Chairmanship of the Director General and the membership of:
 - 1) Representative from the Atomic Energy Commission appointed by the cabinet upon the recommendation of the Minister of Energy and Mineral Resources.
 - 2) Representative from the Ministry of Health appointed by the cabinet upon the recommendation of the Minister of Health.
 - 3) Representative from the Ministry of Environment appointed by the cabinet upon the recommendation of the Minister of Environment.
 - 4) Two persons of Jordanian nationality having experience and specialization in Radiation Protection and Nuclear Science appointed by the Cabinet upon the recommendation of the Prime Minister for three year term, renewable for one more term, and the cabinet can oust any of them and appoint a replacement for the remaining period of his membership in the board.
- b. The Board shall elect one of its members as a vice chair to replace the chairman in case of his absence.
- c. It is not permitted for the Chairman and members of the board or any member of the immediate family to any one of them to have direct or indirect financial benefit, offer consultation or conduct any project in the field of radiation work for all the membership time in the board.

Article 7:

The Board shall have the required powers and perform the tasks to achieve the objectives of the Commission and in particular the following clauses :

- a. Formulation of the general policy in the field of radiation protection, and nuclear safety and security, and submit it to the cabinet for endorsement, and make plans and required programs for implementation.
- b. laying the foundations related to the following:
 - 1) Control of radiation protection, nuclear safety and security, and inspection measures in accordance to terms of this law.
 - 2) Protection of Environment and public health from the hazards of contamination and exposure to ionizing radiation, and to verify the availability of requirements of public protection including environmental radiation monitoring equipments.
 - 3) Create a system to account for and control of all nuclear materials according to relevant international agreements of which the Kingdom is part of.
 - 4) Monitor and disclose cases of illicit trafficking of nuclear and radioactive materials.
 - 5) Verify that radioactive contamination in the imported goods to the kingdom is not above the permissible limits as determined by the Commission.
- c. Issue licensing for any establishment or institution in accordance to the terms of this law and regulations issued accordingly.
- d. Make available qualified manpower, efficient in the areas of radiation protection, nuclear safety and security, and prepare rehabilitation programs and required training for this purpose.
- e. Study radiological and nuclear accidents or environmental contamination resulting from radiation leakage, and investigate the causes in cooperation with official and private bodies concerned in order to take the necessary measures to prevent or limit the occurrence of such accidents and to treat its effects.
- f. Formulate loans and conclude required agreements to achieve the objectives of the Commission and delegate signing of after approval of the Cabinet.
- g. Prepare draft regulations related to the Commission's activities.
- h. Discuss and approve the annual report of the Commission's activities.
- i. Discuss the draft annual budget and the final financial data of the Commission submit them to the Cabinet for endorsement.

- j. Fix wages and fees for the services offered by the Commission.
- k. Formation of advisory and technical committees necessary to assist the Commission in carrying out its tasks.
- l. Set the necessary instructions for the implementation of the terms of the law.

Article 8:

- a. The Board shall convene at least once every month and whenever necessary upon invitation from the Chairman or, when absent, by the Vice-Chairman. The meeting shall be considered legally valid if attended by at least majority of its members, provided that the Chairman or the Vice-Chairman shall be one of them. The Board shall issue its decisions unanimously or by majority vote of its members.
- b. The Board can invite any person, expert or consultant to the meeting for consultation.

Article 9:

- a. The Director General is appointed by a decision of the cabinet upon the recommendation of the Prime Minister provided the decision is endorsed by the high royal decree.
- b. The salary of the Director General, all his financial benefits are set by a decision of the cabinet upon the recommendation of the Prime Minister, His services are terminated in the same manner.
- c. The Director General should be Jordanian with specialization and experience in nuclear science and technology or radiation protection.

Article 10:

- a. The Director General shall be responsible for the conduct of work of the Commission and has the following tasks and powers:
 - 1) Implementation of the general policy of the Commission and execution of the plans and programs approved by the board, and decisions it has issued in this matter.
 - 2) Supervision of the executive body of the Commission.
 - 3) Ensure the commitment of the licensees of the public and private sectors to licensing requirements and take suitable measures against violators.
 - 4) Take measures to control the radiation protection, and nuclear safety and security including conducting inspection of the institutions, facilities installations, and places that contain, handle or use radioactive sources to verify the availability of precautions and protection systems.

- 5) Issuing licenses for radiation workers and permits according to the terms of this law and regulations issued accordingly.
 - 6) Set specifications and technical standards necessary to allow entry to the kingdom equipment and radiation sources, nuclear energy and radiation protection instruments and to submit them to the Board for approval and pronouncement.
 - 7) Issuing leaflets and preparing the necessary media programs to raise public awareness of the importance of radiation protection, and enhance the culture of nuclear safety and security.
 - 8) Preparation of reports and data requested by the Board or the cabinet from the Commission.
 - 9) Preparation of the annual report on the activities of the Commission, and propose future plans, and submit them to the Board.
 - 10) Preparation of the draft annual budget and final financial data of the Commission and presentation to the board.
- b. The Director General can delegate any of his powers stipulated in this law to any of his assistants or any director of the Commission provided that the delegation is well defined and in writing.

Article 11: The Commission shall charge fees for licenses and permits it issues and for their renewal. The fees amount are determined according to a regulation issued for this purpose.

Article 12: The Commission revenues comprise of:

- a. Amounts allocated in the general budget.
- b. Fees for licenses, permits and their renewals.
- c. Changes and fees paid for the services offered by Commission according to the terms of this law and regulations issued accordingly.
- d. Aid, grants, donations, and contributions subject to the approval of the cabinet if from non Jordanian source.
- e. Charges of fines imposed according to the terms of this law.
- f. Any other revenues approved by the cabinet.

Article 13: a. The Commission shall entertain all exemptions and facilities provided for all other ministries and public departments, including customs taxes, value added tax, income tax, stamps fees and any other type of taxes or fees.

- b. The funds of the Commission shall be considered as public property, and shall be collected pursuant to the Public Property Collection Law in force. For this purpose the Director General shall exercise all the powers vested in the administrative Governor and the committee for the collection of public property as stipulated in the law referred to.
- c. The Audit Bureau shall audit the Commission's accounts.

Article 14: It is prohibited for any person to perform any of the following acts without obtaining a license according to the terms of this law:

- a. Establishing, operating or managing any nuclear facility in the kingdom.
- b. Circulation of any radioactive sources or any substances emitting ionizing radiation, import, export, usage, dealing, possession, trafficking, operation, lease, transfer, storage, destruction, disposal, or production, including exploration, grinding, milling crushing ,extracting, converting ,mining or manufacturing.
- c. Using ionizing radiation or perform any work related.
- d. Discharge of ionizing materials into the environment in the form of gas or liquid.
- e. Management of radioactive waste.

Article 15: Every licensed establishment shall comply when performing any of the acts mentioned in Article (14) of this law with the following conditions:

- a. provide the necessary precautions for radiation protection, and nuclear safety and security consistent with the nature of the radiation source and the expected hazard and it's extent, and appoint a radiation protection and nuclear safety and security officer, setting of an emergency plan proportionate with the nature of the work of the establishment according to the regulations issued in accordance to the terms of this law.
- b. Setting physical monitoring programs to determine the measurement of radiation levels, continuous control of radiation, determination of radiation protection methods, contamination removal methods, the nature of precautions which must be taken, and evaluation of the effectiveness of these precautions, review of these programs periodically and when there is any substantial modification on the nature or status or terms or conditions of work.
- c. Setting programs for radiation detection to measure the radioactivity which persons exposed to in order to determine the exposure level and explain the results of such measurement.

d. Setting medical protection programs to evaluate workers health, and ensure continued compatibility between work and worker's health, provide necessary information in cases of accidents and occupational illnesses.

These programs should include the following:

- 1) Comprehensive medical supervision on the special tests conducted on employees as a result of their exposure to radiation during their working conditions based on the general basis of occupational medicine, taking into account their past and present exposure conditions, in addition to their exposure to toxic chemicals or any physical conditions constituting hazards harmful to their health.
- 2) Conducting periodical occupational medical examinations for workers, and under liability for any harm caused to the worker.
- 3) Provide appropriate conditions for medical supervisor accredited by the Commission to carry out medical supervision on the workers, and provide him with information he may request including detailed job description for any worker.

e. Examination and treatment of persons exposed to radiation at the expense of the licensee, cases that require examination and treatment are determined by a special committee formed by the board.

f. Organize and keep records, including records determined by the board, special records of medical examination, accidents, occupational sickness, and records of confidential nature.

g. Notify the Commission and the Civil Defense Directorate by any possible means immediately in case of an accident that caused or may cause environmental contamination, or exposure of any person to a radiation dose exceeding the dose limits, or in case of loss, damage or loss of control of any source of ionizing radiation. Clarification of the details of the accident and the reasons that led to the accident, must immediately be followed by a written documentation of the notification.

Article 16: In the event of failure by the licensee to take precautions necessary for radiation protection, and nuclear safety and security stated in Article (15) of this law, the board shall decide to take necessary precautions as it deems appropriate at the expense of

the licensee in addition to impose fines in accordance to the provisions of this law.

Article 17: Notwithstanding what is stated in Article (14) of this Act:

- a. It is prohibited for any person to bring any radioactive material classified as radioactive waste to the territory of the Kingdom, or use, handle, transport, store, dispose of or bury in the territory of the Kingdom, including the sites mentioned in clause (2) of paragraph (b) of this article
- b. It is prohibited for any person to do any act of the following:
 - 1) Treat foodstuff with ionizing radiation, and the circulation of foodstuff treated by this method, including sale, distribution or use unless authorized by the board on case –by- case bases .
 - 2) Disposal of radioactive waste resulting from the use of radiation sources in different applications in the Kingdom, or burial in its land unless with the consent of the board and under the supervision of the Commission in the sites licensed by the Commission and allocated for by the Ministry of Environment.

Article 18: a. The license is suspended in any of the following cases:

- 1) If the licensee submitted incorrect data or resorted to illegal means resulted in the issuance of the license.
 - 2) If the licensee violated any of the conditions set forth in this law and the regulations and instructions issued accordingly.
 - 3) If the licensee is afflicted by a disease rendering him unable to work with ionizing radiation except if he has available a qualified licensed person to perform this work.
 - 4) If it is found that there is a danger to the environment, the licensee, or his employees as a result of exposure to ionizing radiation.
- b. The board may suspend the license for a specified period, and may also give the licensee time to implement the required conditions and obligations as stipulated for him, and if the licensee has failed to implement those requirements and duties and remove the violation within the period given to him, the board decides to revoke the license.

- Article 19:**
- a. Notwithstanding the provisions of any other legislation the following are prohibited:
 - 1) Employ or train any person under the age of 18 years.
 - 2) Employ any person under the age of 18 years as a radiation worker.
 - b. Taking into consideration what is stated in paragraph (a) of this article, it is prohibited to employ any person despite of age in a work that involves exposure to ionizing radiation in a manner that violates the fundamentals of radiation protection.
 - c. If a person contracted a disease as a result of radiation exposure contrary to the terms of paragraphs (a) and (b) of this article, due to, during, or as a result of his occupation, or suffered total or partial disability, or caused his death, the licensee is responsible for compensation for that person's damages.

- Article 20:**
- a. If any person is engaged in any of the acts stated in articles 14 and 17 of this law without a license, or in case of revoking the license or diverting the violator to jurisdiction, the board upon the recommendation of the Director General may decide to take the following measures against the violator:
 - 1) Closure of the location, facility, institution or establishment where radioactive sources, materials, equipment or radiation devices are kept or used, if keeping, continuous operation, handling or use is causing hazard for health, public safety and environment.
 - 2) Confiscation of radioactive sources, materials, equipment or radiation devices that cannot be licensed, and to impound if it is licensable, and to prevent its use and deposit it in the Commission's store or in any place the board deems appropriate until they are licensed, and if not licensed within three months of the date of seizure, the board decides to confiscate it.
 - 3) Disposal of the confiscated materials in accordance with public interest including returning the imported materials to the country of origin.
 - 4) Taking appropriate precautionary protective measures.

- b. Confiscation of sources, materials, equipment or radiation devices, or disposal of or seizure of them doesn't absolve from taking penalty actions stated in this law or any other law.

Article 21:

- a. The Director General or whom he authorizes in writing of the Commission employees has the right to enter and inspect any place suspected of containing unlicensed sources, materials, equipment or radiation devices, or that any activities are practiced in violation to the terms of this law, regulations, or instruction issued accordingly. The employee performing the inspection shall write a report and submit it to the Director General.
- b. The employees authorized by Director General enjoy the privileges of judiciary members when implementing the terms of this law, and any report prepared by them shall be enforce until proven otherwise.
- c. The authorized employees have the right to confiscate any unlicensed sources, materials, equipment or radiation devices or violating this law or used in unlicensed or unpermitted activity and deliver it to the Commission.
- d. Civil, military, and security authorities and every citizen has to immediately notify the Commission about any act in violation of this law and to offer to the authorized employees of the Commission all possible assistance to perform their job in citing the violations.

Article 22:

Without prejudice to any harder penalty stipulated in any other Law:

- a. Whoever violates any of the terms of articles 14 and 17 of this law shall be punished by imprisonment for at least one year but not more than three years, or shall be liable to a fine of not less than ten thousand Jordan Dinar and not more than thirty thousand Jordan Dinar or to both punishments.
- b. Whoever gives or presents false testimony or incorrect data or report or resorted to illegal means in the context of applying or implementing any of the terms of this law and regulations and instructions issued accordingly, shall be punished by imprisonment for at least one year but not more than two years, or shall be liable to a fine of not less than five thousand Jordan Dinar and not more than fifteen thousand Jordan Dinar or to both punishments.
- c. Whoever violates any of the terms of articles 19 of this law shall be punished by imprisonment for at least six months but not more than one year, or shall be liable to a fine of not less than three thousand Jordan Dinar and not more than ten thousand Jordan Dinar or to both

punishments, the punishment shall be doubled if any person employed or has been trained in a way that violates the terms of article (19) and led to his death, sickness, handicap, or total or partial disability.

Article 23: The court upon request may put a lien on the assets of any person on trial to guarantee that fines and compensations that might be imposed will be paid, and to apprise these assists, and may issue a temporary order for precautionary measures until the end of the trial.

Article 24: All radiation licenses granted before the implementation of the terms of this law are considered as issued accordingly but should be renewed according to the terms of this law and regulations issued accordingly.

Article 25: From the date when the law enters into effect the Commission shall be the legal and real successor of the Jordan Nuclear Energy Commission in matters related to its work and shall obtain all the rights and be responsible for all obligations thereunto.

Article 26: The cabinet shall issue the regulations needed to execute the provisions of this law, including the following:

- a. The safe use of nuclear energy
- b. Safety and security of radiation sources.
- c. Basis and conditions for granting licenses and permits for the radiation work.
- d. Fees for licenses and permits for the radiation work.
- e. Radiation protection
- f. Management and treatment of radioactive waste and spent fuel.
- g. Transport of radioactive materials.
- h. Extracting, mining and processing of the nuclear materials.
- i. Matters related to personnel, employees consultants, experts, and ,specialists, conditions of appointment, employment, wages, benefits, and all other matters concerning them. Thus, the services of the current employees of the Commission are considered continuous employment.
- j. Financial, supplies and work affairs.

k. Establish a saving fund for all the workers in the Commission.

Article 27: The law of nuclear energy and radiation protection No (29) for the year 2001 is revoked. All regulations, and instructions issued pursuant to that Law will remain in effect and shall be replaced by new ones within a period of no more than one year from the date this law enters into force.

Article 28: The Prime Minister and the Ministers shall be responsible for the implementation of the provisions of this Law.