

## 英譯法規內容

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## 法規內文(Content) :

## Article 1

The enforcement rules are enacted according to Article 33 of the Atomic Energy Law, known as this law for short henceforth.

## Article 2

According to section 2 of Article 2 of this law “nuclear source material” means:

- (1) Thorium ore, uranium ore, or mixed ore of uranium and thorium in which the rate of content weight uranium and thorium is higher than five-ten thousandths.
- (2) Uranium and thorium in physical or chemical form or the mixture of uranium and thorium, excluding the nuclear fuel indicated in Article 3.
- (3) Any other material which is designated by the Executive Yuan as nuclear source material.

## Article 3

According to section 3 of Article 2 of this law “nuclear fuel” means:

- (1) Material which is capable of producing energy by a self-sustaining chain reaction of nuclear fission.
- (2) Plutonium, U-233, U-235 and the enriched material of plutonium U-233 or U-235.
- (3) Any other material determined by the Executive Yuan to be nuclear fuel.

## Article 4

According to section 5 of Article 2 of this law “nuclear reactor” means:

- (1) Research nuclear reactor: the primary purpose of this reactor is teaching, research or experiment.
- (2) Power nuclear reactor: the primary purpose of this reactor is

producing power.

(3)Other nuclear reactor: any nuclear reactor that does not belong to the preceding two sections.

#### Article 5

Special nuclear materials as used in these regulations indicate one of the following materials up to or in excess of 5000 grams:

(1)U-235 (Uranium enriched to 20% or more in the U-235 isotope).

(2)U-233

(3) Plutonium

(4) Mixture of U-235, U-233 and plutonium.

Any combination of these materials which is 5000 grams or more is computed by the formula,  $\text{grams} = (\text{grams contained U-235}) + 2.5 (\text{grams U-233} + \text{grams plutonium})$ . Nuclear fuel that contains U-235 (the enrichment is less than 20%), U-233, and plutonium, must be computed by the preceding formula. If the total weight is 5000 grams or more, the regulations in the first paragraph must be observed.

#### Article 6

As regards the research and development of nuclear science and technology, an annual plan and the conditions of research and development of concerned institutions should be reported to the authorities, then conveyed to the Atomic Energy Council and kept on the Council's inventory. The institutions must accept the supervision of the Atomic Energy Council. All institutions that plan to cooperate with foreign atomic energy institutions for research shall get the approval of the Atomic Energy Council.

#### Article 7

According to Article 18 of this law "the production of fissionable material from nuclear reactors" means plutonium, U-233 and any other material which is designated by the Executive Yuan as fissionable material. The fissionable material defined by the preceding paragraph should be reported to the Atomic Energy Council once every half-year. The report should be submitted before July 15 that year and before January 15 of following year.

## Article 8

The area surrounding a nuclear facility should be divided into two areas, according to anticipated degrees of damage in case of nuclear accident:

(1) "Exclusion zone" means an area close to a nuclear facility.

Within two hours of the occurrence of a nuclear accident, a person standing on the perimeter of this area should not receive a total dose to the entire body exceeding 250 mSv (25 Rem) from external fission products, or a dose exceeding 3 Sv (300 Rem) from iodine collecting in the thyroid gland.

(2) "Low density population zone" means an area close to an exclusion zone. Anyone who stands on the boundary of the area should not receive a total dose to the entire body exceeding 250 mSv (25 Rem) from external fission products or exceeding 3 Sv (300 Rem) from iodine collecting in the thyroid gland during the entire period from the appearance of a radioactive cloud after the occurrence of a nuclear accident until the dissipation of the radioactive cloud.

## Article 9

The location of a nuclear facility in addition to corresponding to the regulations of exclusion zone and low density population zone, should keep a distance no less than one and one third the radius of the low density population zone from any area with a population of twenty-five thousand or more.

The preceding location after being assigned by the nuclear installation operator should be reported to the Atomic Energy Council. The Council demarcates a radius of exclusion zone and low density population zone, according to the preliminary safety analysis report and the condition of the area in practice, and negotiates the plan for determining it with the regional authorities. The Atomic Energy Council should suggest changes in the regional plan by law whenever the situation warrants.

## Article 10

Four sets of a topography map of the practical region of the low density population zone and the exclusion zone should

be printed by the nuclear installation operator with 1/4800 or 1/1200 scale in light of needs and sent to the Atomic Energy Council who will negotiate with the Ministry of Interior, Provincial, Hsien governments and other institutions concerned. After approval by the Executive Yuan the local government and the nuclear installation operator should construct the boundary-posts and publicly proclaim enforcement within two months. The latter should bear the construction fee.

#### Article 11

The nuclear installation operator must acquire the legal right to exclusive use of the zone except for highways, railways and seaways. During a nuclear accident, all the highways rail ways and seaways that cross through the exclusion zone must be blockaded immediately in order to control the nuclear accident and dispersal. It is also necessary to notify the local police authorities right away.

Article 12 People may reside in the low density population zone; however, the governments of various grades and public or private corporations shall not locate communities, factories or schools within the area.

#### Article 13

Those who produce or possess nuclear source material shall fill out an application form of enclosure one (Appendix 1) and request approval from the Atomic Energy Council, which may grant a nuclear source material license. Producing or possessing nuclear source material in accordance with any of the following conditions is exempted from the license.

(1)Where the rate of content weight of uranium and thorium in uranium ore, thorium ore, or mixed ore of uranium and thorium is lower than five-ten thousandths.

(2)Where the rate of weight of nuclear source material in a mixed compound, solution or alloy is lower than five-ten thousandths.

(3)Where the rate of content weight of uranium and thorium in nuclear source material is higher than five-ten thousandths

and the total weight of uranium and thorium does not exceed one kilogram.

#### Article 14

Those who apply nuclear source material license must conform to the following conditions:

- (1)The purpose of user must conform to Article 1 of this law.
- (2)Applicant or employee must have training or experience in safety disposal of nuclear source material.
- (3)Equipment, facilities and operating procedures must be integrated sufficiently to protect working personnel and public health.
- (4)Environmental contamination must be precluded.
- (5)There must be a strict management and accounting system and also a definite material accounting area. The said material accounting area described as above in section 5 is divided into principal nuclear facilities, research and development facilities and other locations by the possessor of nuclear source material or nuclear fuel according to the request for use, production or management, which must be submitted to Atomic Energy Council for approval in order to have these areas under control.

#### Article 15

Those who produce or possess nuclear fuel shall fill out an application form of enclosure two (Appendix 2) and request approval from the Atomic Energy Council which may grant a nuclear fuel license. Producing or possessing nuclear fuel in accordance with any of the following conditions is exempted from the license.

- (1)Where the total radioactivity of the nuclear material which contains plutonium is under  $3.7 \times 10^4$  Bq (0.1 micro-curies).
- (2)Where the total radioactivity of the nuclear material which contains U-233 and U-235 is under  $3.7 \times 10^3$  Bq (1 micro-curies).

#### Article 16

Those who apply for a nuclear fuel license shall not only obey Article 14, but also have the capacity to carry out the maximum compensation liability insurance or financial guarantee.

If the produced or possessed nuclear fuel contains U-235 over

500 grams, plutonium over 300-grams, or U-233 over 300 grams, the area of operating, utilizing, storing nuclear fuel shall be supplied with adequate gamma and neutron monitor equipment. They shall enact a complete emergency management procedure to be performed periodically. The preceding emergency management procedure and periodic performance plan shall require the approval of the Atomic Energy Council.

#### Article 17

Those who manufacture a source of plutonium shall obtain the approval of the Atomic Energy Council. Those who possess a source of plutonium shall register it at the Atomic Energy Council.

#### Article 18

As to the transference of nuclear fuel over 1 gram, both the parties shall require approval from the Atomic Energy Council in advance. The same rule applies in respect to parties who move nuclear fuel out of or in to the accounting area. Transferring nuclear fuel which is exempted from license does not require the approval of the Atomic Energy Council.

#### Article 19

No nuclear fuel shall be loaded into a nuclear reactor unless an operating license has been granted by the Atomic Energy Council.

#### Article 20

According to section 3 of Article 21 and section 4 of Article 22 of this law, "complete report" means account recordings of nuclear source material and nuclear fuel. The licensee shall fill out a nuclear material balance report of enclosure three (Appendix 3), according to half-yearly account recordings, and submit it to the Atomic Energy Council for inventory before July 15 of that year and before January 15 of the following year.

#### Article 21

The licensee of nuclear fuel shall immediately report to the Atomic Energy Council any critical accident caused by nuclear fuel and loss except normal operating loss.

In the same period of time the licensee possessing U-235, U-233 and plutonium of nuclear fuel of which the total weight exceeds 5 kilograms shall estimate or inventory nuclear fuel once every half-year or within the period indicated by the Atomic Energy Council.

#### Article 22

Private or public corporations or individuals who legally possess or use special nuclear materials must follow Article 23 to Article 32 in importing, exporting, transporting and storing them. Matters not covered by these regulations are subject to the Safety Rules for Transport of Radioactive Materials and other relevant enactments.

#### Article 23

Parties involved in the import or export of special nuclear materials must submit a plan for transport and a plan for physical protection of the materials. Only when these two plans have been approved by the Atomic Energy Council can permission to import or export be granted.

#### Article 24

Anyone transporting special nuclear materials by road must submit his transport scheme according to the approved transport plan to the military and police officials of the area covered. The following regulations must also be observed:

(1) Vehicles must not exceed the average local speed limit and must stop in a deserted area or along the roadside under surveillance every one to two hours to rest, and change drivers every four hours.

(2) The convoy must be preceded by an advance vehicle which will lead the way. The convoy must also be followed by an escort vehicle which will bring up the rear. If two or more vehicles are used for transport, the road on both sides of the convoy must also be patrolled by supporting vehicles. The advance vehicle and escort vehicle and each of the transport vehicles and supporting vehicles must carry an armed policeman and an escort and the armed policeman must be equipped with a radiotelephone.

(3)Those regulations about carrying dangerous goods by car and driving, as stipulated in the Road Transport Safety Regulation, must be observed.

(4)Coordinate military and police organization in advance to enforcer traffic control along the transport route and preclude road barriers.

#### Article 25

Transport of special nuclear material by rail should be avoided whenever possible. When unavoidable, it must conform to the following regulations:

(1)Transport must be made by special train, or a special car attached to a cargo train.

(2)No less than one escort shall be assigned and whenever the train pulls up at a station, such assigned escort must leave the train to perform supervision and contact the military and police personnel of the station.

(3)The information concerning transport should be provided to the Railroad Authority and Taiwan Garrison Command in advance in order to have it passed on to the military and police units along the railroad and to have military and police personnel assigned at each station to heighten their vigilance and keep in touch with the escort personnel.

(4)When the carrier has reached the station of destination, the material should immediately be delivered under the supervision of the watchman and should not be kept in storage.

#### Article 26

Anyone transporting special nuclear materials by sea must submit his transport scheme according to the approved transport plan to the authorities of loading and discharge and the military and police officials of the transport. The following regulations must be observed:

(1)Packages must be consigned to ship compartments that can be separated from the rest of the cargo, sealed and locked A watchman should also be appointed to keep the material under surveillance.

(2)When the carrier has reached the port of destination the material should immediately be delivered under the supervision of the watchman and should not be kept in storage.

#### Article 27

Anyone transporting special nuclear materials by air must submit his transport scheme according to the approved transport plan to the civil air station and the military and police officials of the area concerned. Shipments should be made only by cargo plane and a watchman should also be appointed to keep the material under surveillance.

#### Article 28

Whether transport is by load, sea or air, care should be taken that the shipment follow the most direct route possible. If, due to unforeseen circumstances, some transfer of cargo becomes necessary it should be carried out under the supervision of the escort or watchman.

#### Article 29

The storage area of the special nuclear materials must be divided by the proprietor into three sections according to relative importance. These three sections must be approved by the Atomic Energy Council and put under control.

(1) "Control area" should be surrounded by a barrier and sentry boxes at regular intervals, manned by armed police guards. Persons engaged in the management and maintenance of the nuclear material and facility must carry an identity card containing a photograph. Visitors accompanied by assigner must present a visitor's pass and register in order to be admitted.

(2) "Material area" means an area containing special nuclear material and located within a "control area". No one can enter the area without special permits.

(3) "Vital area" means an area containing vital equipment and located within a "control area". No one can enter the area without special permits. The buildings of the material area and vital area should be reinforced to twice normal strength and shielded by fireproof material, provided with an automatic, fire-

detecting alarm system, a burglar alarm and a fire-extinguishing system. All entrances and exits should normally be kept locked and under the surveillance of supervisory personnel. The vital area should be supplied with equipment for nocturnal illumination and radiotelephone facilities.

#### Article 30

Persons must be searched on entering and leaving the vital area or the material area and must not carry any dangerous materials, cameras, handbags or briefcases. Keys must be changed when any of the supervisory personnel gives up his position.

#### Article 31

The proprietor of the installation must keep the following records to be inspected by the Atomic Energy Council.

(1) Names and addresses of police guards, watchmen and supervisory personnel.

(2) The names, addresses and identity (or visitor's) card numbers of all persons admitted to the vital area or material area.

(3) Register of visitors. This should contain the time and place of entry, the purpose of the visit and its duration.

(4) Proceedings in key control.

(5) The inventory of special nuclear material must be checked at regular intervals and a report submitted.

(6) The alarm systems, fire extinguishing systems, illumination facilities and emergency installations must be inspected at regular intervals and the results must be recorded.

#### Article 32

If special nuclear material is damaged or stolen or if any other irregularity occurs, the proprietor of the installation should inform the Atomic Energy Council immediately by telegraph or telephone. He should also submit a detailed written report within fifteen days.

#### Article 33

No one shall construct or operate a nuclear reactor in the territory of the Republic of China, unless he has acquired the approval of and a license from the Atomic Energy Council.

Foreign nationalities, companies or corporations, who wish to

locate a nuclear reactor in the territory of the Republic of China, shall request approval of the Executive Yuan in advance. Then they, in accordance with law, may apply for a constructing license.

#### Article 34

Any one who applies for a constructing license for a nuclear reactor shall fill out an application form of enclosure four (Appendix 4), and submit a preliminary safety analysis report which shall state the following particulars after determining the site and before constructing.

(1) A description and safety analysis of the site on which the facility is to be located. Such analysis shall specify the major structures, systems and components of the nuclear reactor which bears significantly on the acceptability of the site under the site evaluation factors.

(2) A summary description of the nuclear reactor, with special attention to the characteristics of design and operating and principal safety considerations.

(3) A preliminary analysis and evaluation of the design, systems and components of the nuclear reactor.

(4) A preliminary plan for the applicant's organization, training of personnel, and conduct of operations.

(5) A description of the quality assurance program to be applied to the design, construction and testing.

(6) A preliminary plan for managing an emergency. Applying for a construction license for a nuclear power reactor, the preliminary safety analysis report shall also state the following particulars:

(1) Radioactive materials in gaseous and liquid effluents produced during normal reactor operations including expected operational occurrences.

(2) The quantity of each of the principal radionuclide expected to be released annually to unrestricted areas in liquid and gaseous effluents (including the gases, halides and particulates) produced during normal reactor operations.

(3) A plan for packaging, storage, and shipment off site of solid waste.

## Article 35

If the design of the afore mentioned application is adequate to protect the public' s health and safety, the Atomic Energy Council may issue a construction license. During the construction, the Atomic Energy Council shall send inspectors to check from time to time. The preceding license shall state the earliest and latest dates for completion of the construction or modification, and its limitation.

## Article 36

Those who apply for an operating license for a nuclear reactor shall fill out an application form as contained in enclosure five (Appendix 5), and submit a final safety analysis report and the technical specifications of safe operation, which shall state the following particulars.

- (1)The latest information about the character of the site on which the facility is to be located.
- (2)A final analysis and evaluation of the structures.
- (3)The means for controlling radioactive materials and radiation doses.
- (4)The organization of the nuclear reactor.
- (5)Plans for preoperational testing and initial operations.
- (6)Plans for the conduct of normal operations, maintenance, surveillance and periodic testing.
- (7)Plans for the management of emergencies.

The preceding technical specifications having been approved may not be changed, unless filed with the Atomic Energy Council in a written report to obtain approval.

## Article 37

The period of an operating license shall not exceed 40 years. Within the valid period, the Atomic Energy Council not only notifies the licensee to submit relevant information from time to time, but also may take the following measures for protecting the health and safety of the public.

- (1)To alter the permitted items of a license or cancel a license.
- (2)After obtaining the approval of the Executive Yuan, the Atomic Energy Council may order a licensee to change the

structures, systems of other necessary aspects of the reactor as necessary.

#### Article 38

Nuclear reactor operator means a person who operates or directs others to operate the control of a nuclear reactor.

Such reactor operators include operators and senior operators, whose scope of operation shall conform to the following regulations.

(1) "Operator" is any individual who manipulates control of a facility.

(2) "Senior operator" is any individual who directs others to execute permitted items of operating license.

The preceding controls means apparatus and mechanisms the manipulation of which directly affect the reactivity or changing reactivity of the reactor.

#### Article 39

An operator's license must be applied for by each nuclear reactor proprietor and an application form filled out according to the conditions contained in enclosure six (Appendix 6). The license can be issued only after passing an examination and operation test administered by Atomic Energy Council.

(1) Every operator must be a graduate of a public or private senior middle school or equivalent and be in good physical condition and have more than one year operation training.

(2) Every senior operator must be a graduate of a public or private college, university or institution of higher learning and be in good physical condition and have more than one year of operating training. Otherwise he must be a qualified operator who has more than two years experience in practical operation.

#### Article 40

For those who are trying to obtain Operating License, if they fail the written test or (and) operating test, then they can apply for the retest after two months on receiving the test result notice. If they fail the second time, then they can apply for the third retest after 6 months on receiving the second retest result notice.

If they fail again, then they can apply for another retest after two years on receiving the third retest result notice.

#### Article 41

The effective term of operator' s license is two years. An application form for renewal of a license may be filled out and submitted to the Atomic Energy Council before the term expires. The conditions for application are that one shall be well both psychologically and physically, and shall have engaged in practical operating or performed well in operating retraining. Those who do not have experience as mentioned above have to pass a written examination or an operating test or both.

Article 42 While a nuclear reactor is starting up, refueling, or increasing power after reducing it , a senior operator must be on site to supervise. While a nuclear reactor is in operation. There must be more than one licensed operator on duty in the control room.

The control equipment which directly affects the reactivity or power of a reactor must be operated by a licensed operator except under the conditions of article 44. Other equipment which indirectly affects the reactivity or power of a reactor must be operated under the permission of a licensed operator.

#### Article 43

The reactor operators are limited to the facilities for which the license is issued or those of the facilities specified in the license. If an operator is sick so that his judgment or operation may be mistaken, the licensee of the nuclear reactor shall immediately stop his operation and report the situation to the Atomic Energy Council.

#### Article 44

The following people are exempted from a license in operating nuclear reactors.

(1)A student, in a licensed operator' s presence and under his actual direction, may operate a research nuclear reactor for the purpose of training.

(2)An individual, who is receiving operating training, in a

licensed operator' s presence and under his actual direction, may operate a nuclear reactor for the purpose of training.

#### Article 45

Before a nuclear reactor proprietor disassembles or discards his installations; he must submit the scheme for disassembling procedures, radioactive material disposal and site decontamination to Atomic Energy Council for approval. The results of disassembling or disposal must be reported to Atomic Energy Council for inspection. After passing inspection, Atomic Energy Council will notify the Ministry of Interior, and the Provincial (or Municipal) Government to cancel the restrictions of the exclusion zone and the low population density zone and the Executive Yuan accordingly.

#### Article 46

According to Article 26 of this law “radioactive materials” means, excepting nuclear source materials and unclear fuel, any material emitting ionizing radiation by spontaneous nuclear transformation or any mechanism containing the preceding materials. “Ionizing radiation installation” means, excepting nuclear reactors, any apparatus that can produce ionizing radiation by means of an electric field , a magnetic field, or nuclear reaction or other methods. The preceding materials and installations, according to the purposes of use, are divided into two kinds, that is, those for medical and for non-medical purposes.

#### Article 47

The licenses of radioactive materials and ionizing radiation installations are divided into three kinds as unsealed radioactive materials, sealed radioactive materials and ionizing radiation installations. The proprietor shall fill out an application form as contained in enclosure seven (Appendix 7), and report it to the Atomic Energy Council for checking, then a license will be issued. Licenses for medical radioactive materials or medical ionizing radiation installations shall be issued by the Atomic Energy Council in coordination with the National Health Administration (NHA). The preceding medical radioactive materials and ionizing radiation installations mean medical radioactive isotopes and radiation

medical installations. The storage, installation, use or experiment of which shall be managed in accordance with "Standards of Radioactive Protection Safety" and "Regulations for Medical Radioactive Safety" enclosure eight (Appendix 8). The preceding medical radioactive isotopes mean the radioactive materials which can enter the body by means of eating, injection or other methods. The purchasing and installing conditions or qualifications in applying for medical radioactive material or ionizing radiation equipment should be consistent with the provisions provided by the NHA.

#### Article 47-1

The Atomic Energy Council shall assign specific organization to help checking the safety examination and ionizing radiation measurement of the installation or modification of the radioactive material and equipment capable of producing ionizing radiation; the implementation methods shall be stipulated by the Atomic Energy Council.

#### Article 48

The proprietor of radioactive materials and ionizing radiation installations shall report the situations, change of situations and production records to the Atomic Energy Council once per half-year. The report shall be submitted before July 15 of the that year and before January 15 of the following year. Any change of operator shall be reported at the same time.

#### Article 49

The operating licenses of medical radioactive materials and medical ionizing radiation installations provided in section 3 of Article 26, are divided into three kinds as listed below , and which are issued with particular reference to doctors, dentists, and medical radiation technologists and technicians. No one without an operating license shall operate the materials and installations. But for those physicians, dentists who are receiving clinical experience training in hospitals, or domestic medical college students or graduates who are accepting the internship in hospitals, if they are engaging in the operational trainings under the guidance of personnel who have obtained operating license, they can be waived from obtaining operating license.

(1)The operating license for radiation diagnostic installations.

(2)The operating license for radiation remedial installations.

(3)The operating license for using radioactive isotopes.

Article 50 Any doctor or dentist, applying for an operating license of medical radioactive materials and medical ionizing radiation installation, shall have received a training of radiation protection, and fill out an application form as contained in enclosure nine (Appendix 9) then submit it to the Atomic Energy Council, which in coordination with the NHA may grant an operating license.

The aforementioned medical ionizing radiation protection trainings are sponsored by Atomic Energy Council in accompany with the NHA. Those who have obtained radiologist certificates, on applying for the first item operating license, can be waived from submitting the graduation certificate of medical ionizing radiation protection trainings.

Article 51

Those who apply for an operating license as medical radiation technologists or medical radiation technicians shall fill out an application form as contained in enclosure ten (Appendix 10) and submit the application and certificate of examination or accreditation to the Atomic Energy Council, which in coordination with NHA may grant a license. A technologist or technician, having obtained an operating license, may operate medical radioactive materials or medical ionizing radiation installations under the direction of a licensed doctor or dentist.

Article 52 Deleted

Article 53 Deleted

Article 54 Deleted

Article 55 Deleted

Article 56 According to section 3 of article 26, the operating licenses of nonmedical radioisotopes and radioactive facilities are divided into junior, medium and senior grades. Their operation range is governed by the following regulations:

(1)A junior licensed operator may operate less than  $3.7 \times 10^{12}$

Bq (100 curies) sealed radioactive material or unsealed radioactive material of less than 10,000 times that of exempted quantities or

X-ray installations whose potential is less than 500 KVP or accelerators whose particles' energy is less than 500 KeV.

(2) A medium licensed operator may operate less than  $1.85 \times 10^{14}$  Bq (5000 curies) sealed radioactive material or unsealed radioactive material of less than 500,000 times that of exempted quantities or X-ray installations whose potential is less than 10,000 KVP or accelerators whose particles' energy is less than 10,000 KeV.

(3) A senior licensed operator may operate any sealed and unsealed radioactive material or any radioactive facilities.

#### Article 57

Anyone applying for the above-mentioned operating license, shall have the following qualifications and fill out an application form as contained in enclosure eleven (Appendix 11), who will then submit the application to the Atomic Energy Council to obtain a license. Anyone without an operating license, except under the conditions provided in Article 58, shall not operate non-medical radioactive materials and non-medical ionizing radiation installations.

(1) Application for junior operating license: anyone who has pursued studies concerned with ionizing radiation and graduated from a public or registered private university, or from a foreign university which has been accredited by the Ministry of Education. In addition, anyone who has received a training in ionizing radiation, which has been approved by the Atomic Energy Council, and had an operating training of more than six months and obtained a certificate may also apply for this license.

(2) Application for medium operating license: anyone who has engaged in atomic energy research and graduated from a public or private institute, or from a foreign university which has been accredited by the Ministry of Education. Furthermore, anyone who has received training in ionizing radiation, which has been approved by the Atomic Energy Council, and had experience in practical operating for more than two years and obtained a certificate may also apply for this license.

(3) Application for senior operating license: Anyone who has received training in ionizing radiation protection, which has been

approved by the Atomic Energy Council and had experience in practical operating for more than three years, as provided in section 2 or section 3 of the preceding article is eligible for a certificate.

The Atomic Energy Council, in order to examine the applicant's ability in operating radioactive materials or operating ionizing radiation equipment, and the applicant's knowledge of ionizing radiation protection, may give a test (including practical manipulation).

#### Article 58

Exemption from applying for a license may be granted to the following categories of persons:

(1) Teachers or students under the direct instructions of teachers in high school may operate in school less than  $3.7 \times 10^9$  Bq (100 microcuries) sealed radioactive material or unsealed radioactive material of less than 100 times that of exempted quantities or X-ray installations whose potential are less than 10 KVP or accelerators whose particles' energy are less than 10 KeV.

(2) Teachers, researchers or students under the direct instruction of teachers or researchers in institutes, colleges, or universities may operate in these places less than  $3.7 \times 10^{10}$  Bq (1 cure) sealed radioactive material or unsealed radioactive material of less than 1000 times that of exempted quantities, or X-ray installation, whose potential are less than 100 KeV.

(3) Any person who is under operation training by a licensed operator.

#### Article 59

The limited quantity of radioactive materials, which are exempted from control according to section 11 of Article 26 of this law, must follow the regulations contained in column 10, table 4, appendix (2) referring to Standard of Ionization Radiation Protection Safety.

#### Article 60

All licenses with a limited effective period provided in this law cease to be effective from the moment when such time

expires. If the licensee applies for a change of license to the Atomic Energy Council thirty days before the time expires, the old license may continue to be effective in the period until the new license is issued. If a statement of a license is changed, the licensee shall apply for the change of a statement and license to the Atomic Energy Council within fifteen days from the moment when the licensee knows of the grounds for change, or when the change happened.

#### Article 61

The Atomic Energy Council may order anyone violating the obligations of performance and nonperformance of protection control provided for in this law, to amend within a limited time. Anyone violating the regulations in Article 30 to Article 32 of this law shall be prosecuted in court by the Atomic Energy Council.

#### Article 62

According to the second paragraph of Article 33 of this law, he expenses and standards may be regulated in accordance with enclosure twelve (Appendix 12).

#### Article 63

These regulations shall come into force upon the date of issuance.