



Convention of Nuclear Safety
National Report
State of Qatar
2022

Ministry of Environment and Climate Change
Department of Radiation Protection

The use of atomic energy in Qatar strictly involves its peaceful applications mainly in the fields of medicine, agriculture, animal resources and production, industry, and environment. Qatar has no nuclear installation. Thus, Qatar has no nuclear fuel storage or nuclear fuel processing cycle. Qatar's economy is mainly dependent on oil and gas production which associated with the use of large number of radiation sources in industrial radiography, well-logging, nuclear gauges, and tracers. The oil and gas industry are also associated with generation of large amount of NORM waste. By contrast, small quantity of DU, used as shielding. Currently, no national plan for a future use of nuclear power plants in the country.

1. Legislative and regulatory framework

- a) Qatar issued Radiation Protection Law No. 31 for the year 2002 (law 31/2002). To facilitate for the implementation of the law the Government of Qatar issued Executive Regulations No. 4 for the year 2003 (Regulation 4/2003). The law provides for the establishment of a Regulatory Body which now is the Department of Radiation Protection (DRP) of the Ministry of Environment and Climate Change (MOECC). The law empowers the Regulatory Body to license all nuclear and radiation facilities and activities in the country and to inspect these facilities and activities to ensure their compliance with the safety requirements. The law provides for number of offences in case of violations. Law No. 31/2002 empowered the Ministry of Public Health to provide practice license for the medical applications in coordination with the DRP. Number of practice specific guidelines were issued and some still in draft form.
- b) In 2018, Qatar passed law No. 3 on the National System for Account and Control of Nuclear Material (Law 3/2018). This law provides for Qatar to meet its obligations stated in the Safeguard Agreement between Qatar and the International Atomic Energy Agency. The system for accounting and controlling of nuclear material is being done in collaboration between the DRP and the Ministry of Defense.
- c) Qatar made a political commitment to the implementation of the code of conduct on safety and security of radioactive sources (2004) and to its associated guidance on the import and export of radioactive sources (2007). Qatar is in the process to express its official commitment to the associate guidance on the management of disused radioactive sources.
- d) Through IAEA Technical Cooperation Program (TC), Qatar received assistance to establish and improve its radiation and nuclear safety infrastructure. The assistance includes training of staff, equipment, and expert mission.
- e) In early 2002 Qatar received IAEA Advisory Mission on Radiation Safety to review its radiation safety infrastructure. The mission provided recommendations for Qatar to

improve its safety infrastructure. The mission resulted in developing an action plan to address the gaps identified. A follow-up advisory mission was organized in 2012. The follow-up mission report indicated that good progress was made by Qatar in establishing and strengthening its radiation safety infrastructure. The Action plan was modified to reflect the gaps identified and the ones yet to be addressed.

- f) Qatar is planning to review the whole country radiation safety and nuclear security infrastructure and develop policy and strategy to strengthen radiation safety and nuclear security with the assistance with IAEA. The review of the national radiation and nuclear safety infrastructure will include analysis of the current situation of the existing safety infrastructure. The review will include analysis of the situation for all Ministries and bodies in the country that having responsibilities and activities related to national nuclear and radiation safety.
- g) A new comprehensive law was drafted to address safety, security, and safeguard. The new drafted law will establish independent regulatory body and will be in line with the international safety standards. The draft law reviewed by the IAEA and is being now discussed internally for the final approval.

2. Regulatory Body

Radiation Protection Law No. 31 for the year 2002 (law 31/2002) established the Regulatory Body which now is the Department of Radiation Protection (DRP) of the Ministry of Environment and Climate Change (MOECC). The law empowers the Regulatory Body to license all nuclear and radiation facilities and activities in the country and to inspect these facilities and activities to ensure their compliance with the safety requirements. The mandates of the regulatory body in accordance with the law 31/2002 are:

- a) Prepare safety regulations, instructions, and guides for the different practices
- b) Setting limits and standards for all types of radiation exposures and limits for the levels of radioactive pollution of air, water, food, and soil.
- c) Licensing all facilities and activities
- d) Do all types of inspections (announced, unannounced, in case of accidents)
- e) Control the radioactive waste discharges, disposal, and storage.
- f) Do radiation monitoring in the environment
- g) Setting the national nuclear and radiological emergency plans in coordination with the other relevant authorities
- h) Licensing of export and import of radiation sources and nuclear material.

3. Emergency preparedness' and response for nuclear and radiological accidents:

In accordance with article 5(6) the regulatory body is empowered to set the national nuclear and radiological emergency plans in coordination with the other relevant authorities and approve the emergency plans of the different licensees in the country.

Qatar initiated the process for the review of the draft national emergency plan and with assistance of the IAEA to finalize and approve it. Drills and exercises are planned to take place at the national level hence the national plan finalized.

Qatar has participated in all international emergency exercises organized by IAEA (Morocco, UAE) which helped Qatar to test national response to these possible types of accidents.

4. International Cooperation:

Qatar is member of the International Atomic Energy Agency (IAEA) since 1976. Through IAEA Technical Cooperation Program (TC), Qatar received assistance to establish and improve its radiation and nuclear safety infrastructure. The assistance includes training of staff, equipment, and expert mission.

In view that Qatar is a member of the Gulf Cooperation Council (GCC) it is participating in the Emergency Management Centre (hosted by Kuwait) established by the GCC for emergency and preparedness in case of nuclear accidents.

Through IAEA technical Cooperation Qatar is participating in number regional projects on emergency and preparedness for radiological and nuclear accidents. These projects helped Qatar in training of staff and exchange of experience in the field.

Qatar in the process of reviewing its radiation and nuclear safety infrastructure, through Integrated Regulatory Review Services IRRS, to strengthen its infrastructure and be in line with the international safety standards. This review will be done in collaboration with the IAEA, and it will address all nuclear safety issues including national policy and strategy for safety, government responsibilities for safety, regulatory infrastructure, global safety regime, emergency preparedness and response, and competency management.

Summary Table

Activity	Activities by Regulator		
	Activities - Taken - Ongoing - Planned	Schedule or Milestones for Planned Activities	Conclusion Available
Topic 4 - National Organizations			
Final Review of the new draft Nuclear Law Act of Qatar	Expert missions are planned with the IAEA to organize national seminars for the relevant authorities to finalize the draft	Q4 2022 Q1 2023	The draft of the law is available
Review of Qatar's radiation and nuclear safety infrastructure	Request sent to the IAEA to agree on the activities to be done to do the review and identify gaps and agree on action plan to address the gaps	Q3 2022 Q1, Q2, Q3 2023	No
Topic 5 - Emergency Preparedness and Response			
Review of the draft National Emergency plan	Tender for international companies to review the plan finalized	2023	No
Assistance of the IAEA to finalize the draft national emergency plan	Planned	2023-2024	No
Training of staff	Ongoing	2023-2024	No
Topic 6 - International Cooperation			
Participating in in the Emergency Management Centre established by the GCC for emergency and preparedness in case of nuclear accidents.	Ongoing	The annual Meeting in 2022	Yes
Request for IRRS peer review mission to review the Safety infrastructure of the country	Planned	In 2023	No
Participating in the international exercises	Ongoing	2022 - 2023	Yes