

The UAE's regulation and licence for nuclear security transportation of Unirradiated fresh fuel

This paper presents the regulatory framework of the United Arab Emirates (UAE) for the nuclear security transportation of nuclear material and its implementation for the first licence of transportation of unirradiated nuclear fuel of Barakah Nuclear Power Plant (NPP). FANR, the nuclear regulator of the UAE in accordance with the Federal Law by Decree No. 6 of 2009 on Peaceful Uses of Nuclear Energy, has developed and maintained a regulation for Physical Protection of Nuclear Material and Nuclear Facilities [FANR-REG-08] to provide requirements to the operator of a nuclear facility. Based on IAEA recommendations of nuclear security series No. 13 (INFCIRC/225/Revision 5), the regulation established requirements regarding the transport of Category I to III nuclear material (Article 27). FANR has developed a regulatory guide for Physical Protection for Transportation of Nuclear Material [FANR-RG-025] to provide guidance on how to respect the regulation. Before loading the fuel in Barakah NPP, the nuclear fuel has to be transported from South Korea to the UAE and stored inside the plant. The licensee of Barakah NPP, Emirates Nuclear Energy Corporation (ENEC), requested a licence for the transportation and the storage of fresh nuclear fuel in Unit 1 of Barakah NPP, in accordance with the regulations of FANR. In conformance with FANR-RG-25, the Transport Security Plan has been submitted to FANR. It was a recommendation in FANR-RG-25 to submit a Transport Security Plan to FANR, taking into account that the nuclear fresh fuel is Category III nuclear material, as well as to have an armed escort and Transport Security Centre. FANR reviewed this Transport Security Plan and Request Additional Information (RAIs) following the instruction for the Physical Protection for Transportation of Nuclear Material [FANR-SCD-RI-002]. In December 2016, the Licence for transportation of unirradiated fuel was issued and the Transport Security Plan was approved. From beginning of 2017 to August 2017, 5 shipment of nuclear material was organized between South Korea and Barakah NPP, fulfilling the approved Transport Security Plan. Before these transports, FANR has several meetings with the Nuclear Safety and Security Commission from South Korea as well as with Korea Institute of Nuclear Non-Proliferation and Control (KINAC) to discuss arrangements between the two parties in regards with the requirements for international transport of nuclear material in the Convention of Physical Protection of Nuclear Material (CPPNM) and its Amendment thereto. For the transport of unirradiated nuclear fuel of Unit 2 of Barakah Nuclear Power Plant and storage on the site, ENEC has to submit a Transport Security Plan to the approval by FANR.

State

United Arab Emirates

Gender

Female

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