

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

Fatima Alhammadi, Sara Alsaadi, Fatima Almuhairei, Osama Alshehhi and Denis Winter
Nuclear Security Department – Federal Authority for Nuclear Regulation, P.O Box 112021, Abu Dhabi, UAE
Fatima.alhammadi@fanr.gov.ae

International commitments on transportation of nuclear material

The UAE has signed the Convention of Physical Protection of Nuclear Material (CPPNM) in 2003 and accepted its Amendment in 2009. The UAE implemented the requirements of these conventions, especially Annex 1.

Regulatory requirements concerning the transportation of nuclear material inside the UAE

Regulatory Guide on Physical Protection for Transportation of Nuclear Material [FANR-RG-25]

This regulatory guide, issued in March 2015, was developed based on INFCIRC/225/Rev. 5 and IAEA Nuclear Security Series No. 26-G, Security of Nuclear Material in Transport. It concerns the security of nuclear material Category I to III during the transportation within the State and on-board ships or aircraft registered to the State

Regulation on Physical Protection of Nuclear Material and Nuclear Facilities [FANR-REG-08]

Article 27 (1) – Nuclear Material in Transport

“The Licensee, or the Carrier of Category I, II or III nuclear material shall develop and implement a Physical Protection Plan to address the protection against Unauthorized Removal of Category I, II or III nuclear material or Radiological Sabotage during Transport and obtain the Authority’s approval thereto. The Physical Protection Plan shall be submitted to the Authority together with the application for a licence” ...

(Exceeding the recommendations of INFCIRC/225/Rev. 5, where the transport security plan for only Category I and II)

FANR License for transporting unirradiated nuclear fuel for Barakah NPP Unit 1

Federal Authority for Nuclear Regulation (FANR) reviewed the Transport Security Plans submitted

FANR submitted requests for additional information (RAIs) following the review of the Physical Protection for Transportation of Nuclear Material

ENEC answered to RAIs, updated and re-submitted the Transport Security Plan

FANR Board of Management issued the Licence for transportation of the fresh nuclear fuel of Barakah NPP

Transport of unirradiated fresh fuel for Barakah Nuclear Power Plant

Emirates Nuclear Energy Corporation (ENEC), requested a licence for the transportation of fresh nuclear fuel of Barakah NPP

The Transport Security Plan (in accordance with FANR-REG-08), was submitted for four (4) shipment of fresh nuclear fuel for the Unit 1 of Barakah NPP, contained:



The route from South Korea to Barakah NPP with the potential stopovers



The escort as well as the response force expected



The security measures on the shipment

National Stakeholders involved in the Transport Security



The Transport Security Center



The responsibilities shared in the security transportation

Another Transport Security Plan was submitted for the last shipment of fresh nuclear fuel for Unit 1 of Barakah NPP

The timeline for transporting unirradiated nuclear fuel for Barakah NPP Unit 1

Submission of the application for Licence to transport fuel for Barakah NPP Units 1, 2, 3 & 4
December 2015

Last shipment was transported from Korea to UAE (Barakah NPP)
September 2017

October 2015

Submission of the application for licence to handle and store unirradiated fuel for the Barakah NPP Unit 1.

December 2016

- FANR granted
1. License for handling and storage of Unirradiated Nuclear Fuel
 2. License for the Transportation of Unirradiated Nuclear Fuel