



**Date:** 28 November 2013

**Ref:** FANR - DGO - ENEC - COR - 01742-2013

**Mr. Mohammad Al Hammadi**

Chief Executive Officer

Emirates Nuclear Energy Corporation (ENEC)

P.O. Box 112010

Abu Dhabi

**Fax: 02- 6595666**

**Subject: Request for Amendment to Amended Licence for Preparation of a Site for the Construction of a Nuclear Facility - Licence No. FANR/NF/2010/002A Rev.1**

Dear Mr. Al Hammadi,

In ENEC's letter, reference number ENA-FANR-13-0088L-LNP dated 16 June 2013 addressed to the Federal Authority for Nuclear Regulation (FANR), ENEC submitted an application for an amendment to the Licence for Preparation of a Site for the Construction of a Nuclear Facility (Licence No.: FANR/NF/2010/002A Rev. 1) requesting authorisation for specific site preparatory activities.

The requested site preparatory activities were described as construction of the following nuclear power plant facilities and features/structures, systems and components (SSCs) not related to nuclear safety:

1. Circulating Water (CW) intake conduit (Barakah Units 3 & 4)
2. Circulating Water (CW) intake structure (Barakah Units 3 & 4)
3. Circulating Water (CW) discharge conduits (Barakah Units 3 & 4)
4. Seawater bypass pump house (SWBPH) for possible future units

Following the initial completeness review, FANR requested additional information from ENEC via letter reference number FANR - NSD - ENEC - COR -00729-2013 dated 23 June 2013.

ENEC responded to this request via letter reference number ENA-FANR-13-0118L-LNP dated 07 July 2013 and provided the requested information.

FANR has completed its regulatory review and assessment of ENEC's request and made a recommendation to the FANR Board of Management regarding it. FANR Board of Management has authorised me as the Director General of FANR to issue an amended licence to cover these non-nuclear safety related site preparation activities.

Please find attached to this letter a copy of the Amended Licence for Preparation of a Site for the Construction of a Nuclear Facility (Licence No: FANR/NF/2010/002A Rev.2). This amended licence is in force as of 26 November 2013.

Should you have any queries in this regard, please do not hesitate to contact Mr. Ian Grant, Director of Nuclear Safety.

Yours sincerely,

**Dr. William D. Travers**

Director General



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**Licence No: FANR/NF/2010/002A Rev. 2**

**Amended Licence for Preparation of a Site for the Construction of a Nuclear Facility**

Under the powers provided in Articles (6) and (28) of the Federal Law by Decree No. 6 of 2009 Concerning the Peaceful Uses of Nuclear Energy (the **Law**), the Federal Authority for Nuclear Regulation (the **Authority**) hereby issues this Amended Licence for Preparation of a Site for the Construction of a Nuclear Facility (this **Licence**) to:

**The Emirates Nuclear Energy Corporation (ENEC)**

being a corporation established by Abu Dhabi Law number 21 of 2009.

This Licence authorises ENEC to conduct the following Regulated Activity set forth in Article (25) 2 of the Law:

**Preparation of a Site for the Construction of a Nuclear Facility.**

Capitalised terms used but not defined in this Licence shall have the meaning ascribed to them in the Law. References herein to Schedule mean references to a schedule of this Licence.

The specific activities authorised by this Licence are set forth in Schedule 1.

The site is the so-called *preferred site* situated in Barakah west of Ruwais as described in the application document referenced in Schedule 4.

This Licence is granted at ENEC's risk and without prejudice to any subsequent decision by the Authority about the suitability of the siting, Design and Construction of the Nuclear Facility or its systems, structures and components.

This Licence is subject to the conditions set out in Schedule 3.

This Licence shall continue to be valid until the completion of the Construction work of the Nuclear Facility or until it is earlier suspended or revoked by the Authority or surrendered by ENEC.

This Licence comprises this page and the following Schedules:

Schedule 1: (1 page) Authorised Activities;

Schedule 2: (2 pages) Specification Required under Article (24) of the Law;

Schedule 3: (1 page) Licence Conditions; and

Schedule 4: (1 page) Application Document References

**William D. Travers**  
**Director General**

Issued in Abu Dhabi  
26 November 2013





**Schedule 1 Rev. 2**  
**Authorised Activities**

The site preparation activities authorised by this Licence are as detailed hereunder:

- a) Works related to the Construction of features of the overall Nuclear Facility:
- Subsurface preparation including dredging and placement of backfill and installing coffer dams and driving of piles.
  - Development of permanent site roads and vehicle parking.
  - Permanent modifications to existing port(s) or creation of a new wharf.
  - Heliport and other permanent transportation facilities.
  - Permanent site petrol stations and equipment maintenance facilities.
  - Temporary sanitary and solid waste systems and hazardous waste facility.
  - Permanent national infrastructure such as water distribution systems to the facilities.
  - Permanent transmission lines for power to and from plant.
  - Permanent telecommunications.
  - Permanent plant administration building.
  - Permanent features of security systems, including fences, gates, guard structures and perimeter lighting.
- b) Preparatory works for the Nuclear Facility structures not related to Nuclear Safety:
- Structures requiring excavations, dredging mud-mats and retaining walls.
  - Installation of buried piping channels or conduit not related to Nuclear Safety.
  - Construction of other Nuclear Facility structures not related to Nuclear Safety such as sanitary treatment plant, cold machine shop, transformer foundations, and auxiliary boiler buildings.





**Schedule 2 Rev. 2**  
**Specification Required under Article (24) of the Law**

1. **The Facilities, Activities or inventories of Radiation Sources covered by this Licence.**  
This Licence covers the Regulated Activity preparation of site for the Construction of a Nuclear Facility as described in Schedule 1.
2. **The requirements for notifying the Authority of any modifications to Safety-related aspects.**  
Licence condition 2 in Schedule 3 sets out the requirements for notifying the Authority of any modifications to Safety-related aspects.
3. **The obligations of the Operator in respect of its Facility, equipment, Radiation Source(s) and personnel.**  
The obligations of ENEC related to the site preparation activities are set out in Schedule 3.  
  
Any use of Radiation Sources, considering their potential harmful effect upon personnel, shall be subject to licensing by the Authority.
4. **Any restrictions imposed on Operation and use (such as Dose or Discharge limits, action levels or limits on the duration of the License).**  
The duration of this Licence is specified in this Licence; it provides for no other restrictions on Operation and use without prejudice of those arising from future licences.
5. **Criteria and conditions for Radioactive Waste Processing for existing or foreseen Radioactive Waste Management Facilities.**  
No Radioactive Waste Processing is foreseen or authorised under this Licence.
6. **Any additional authorisations that the Operator is required to obtain from the Authority.**  
As indicated in item 3 of this Schedule 2, ENEC is required to obtain a separate licence for any use of Radiation Sources.
7. **The requirements for Incident reporting.**  
No requirement for Incident reporting is foreseen or authorised under this Licence.
8. **Criteria of the reports that the Operator is required to submit to the Authority.**  
Criteria of the reports and information that ENEC is required to submit are set forth in Licence conditions 2, 3, and 5 in Schedule 3.

**9. The records that the Operator is required to retain and the time periods for which they must be retained.**

The obligations of ENEC related to retaining information are set out in Licence condition 8 in Schedule 3.

**10. Emergency Preparedness.**

No Emergency Preparedness provisions are foreseen under this Licence.

**11. Any other requirements determined by the Authority in implementing regulations.**

There are no other requirements beyond those specified in the Licence conditions in Schedule 3.



**Schedule 3 Rev. 2**  
**Licence Conditions**

1. ENEC shall conduct the activities authorised by this Licence in accordance with:
  - a) The Law;
  - b) The applicable regulations issued by the Authority pursuant to the Law;
  - c) The guidance for an application for a licence for the Preparation of a Site for the Construction of a Nuclear Facility; Ref: FANR-ENEC-OPR-0005/2010, February 18, 2010;
  - d) The terms and conditions of this Licence; and
  - e) The documents referenced in and/or submitted with ENEC's application for this Licence (the Application Documents).
2. In case of modification to the reference plant Design, layout or Safety classification of activities, ENEC shall request a specific authorisation from the Authority based on submitted evidence that the modification shall have no relation with or impact upon Nuclear Safety.
3. ENEC shall provide the Authority with a list and timetable for specific activities to be undertaken under this Licence prior to the beginning of such activities.
4. ENEC shall provide the Authority with access to any place, to any document or to any authorised person, and shall provide all assistance necessary to enable the Authority to inspect the activities being performed pursuant to this Licence, in accordance with Articles (5), (35) and (36) of the Law.
5. ENEC shall provide to the Authority within one month of the end of each calendar year a report on the activities carried out under this Licence during the previous year. This report may be integrated with other reports requested for the same program.
6. ENEC shall obtain any necessary licences, permits and authorisations from other competent authorities in the UAE prior to conducting any activities authorised by the Authority under this Licence.
7. While this Licence remains in force, ENEC shall, for any further licence associated with the Nuclear Facility, demonstrate that pursuing the activity under this Licence does not impair the Safety of the activities performed under these further licences.
8. ENEC shall retain any Safety-related information gathered and recorded during the site preparation process for the lifetime of the Nuclear Facility.



**Schedule 4 Rev. 2**  
**Application Document References**

Letter ENEC/FANR/10/0008L/LNP, April 21, 2010, including four Enclosures and an attachment to Enclosure 3, entitled ENEC Quality Assurance Manual.

Letter ENEC/FANR/10/0020L/LNP, June 6, 2010, response to FANR Request for Additional Information for those parts referring to the Site Preparation Licence Application.

Letter ENA-FANR-12-0226L-LNP, 13 September 2012, "Request for Amendment to Licence No. FANR/NF/2010/002A, "Licence for Preparation of a Site for the Construction of a Nuclear Facility," dated 8 July 2010", including one Enclosure.

Letter ENA-FANR-12-0229L-LNP, 17 September, 2012, "Response to Questions from FANR associated with ENEC's Request for an Amendment to Licence No. FANR/NF/2010/002A, "Licence for Preparation of a Site for the Construction of a Nuclear Facility", dated 8 July 2010, including four Enclosures.

Letter ENA-FANR-13-0088L-LNP, 16 June, 2013, "Barakah 1, 2, 3 and 4 Request for Amendment to Site Preparation Licence No. FANR/NF/2010/002A Rev. 1

Letter ENA-FANR-13-0118L-LNP, 07 July 2013, Barakah Units 1, 2, 3, and 4 - Additional Information Regarding Request for Amendment to Site Preparation Licence No. FANR/NF/2010/002A Rev.1