



**Licence No: FANR/NF/2023/001**

**Licence for the Construction of Unit Four of the Barakah Nuclear Facility and Related Regulated Activities**

Under the powers provided in Articles (5), (6) and (28)(3)(a) of the Federal Law by Decree No. 6 of 2009 Concerning the Peaceful Uses of Nuclear Energy (the Law), and having considered that the proposed activities of Emirates Nuclear Energy Company P.J.S.C. comply with the requirements of the Law and applicable regulations of the Federal Authority for Nuclear Regulation (the Authority), the Authority hereby grants this licence for the Construction of the following Nuclear Facility – unit 4 of the Barakah Nuclear Power Plant (Barakah NPP Unit 4) - (the Licence) to:

**Emirates Nuclear Energy Company P.J.S.C. (the Licensee)**

being a public joint stock company (industrial licence No: IN-1002171) established pursuant to the Abu Dhabi Law No. 8 of 2021 on Emirates Nuclear Energy Company "Public Joint Stock Company".

This Licence authorises the Licensee to conduct the following Regulated Activity set forth in Article 25(3) of the Law:

**Construction of a Nuclear Facility**

and related Regulated Activities listed in Section 1 of Schedule 1 of this Licence.

The Licence conditions are set forth in Schedule 2. The description of the Nuclear Facility, its location and its Construction is provided in the Licence application documents referenced in Schedule 3. Schedule 4 provides interpretation of certain terms used in this Licence.

This Licence shall remain in force until:

- it is suspended or revoked by the Authority;
- it is amended by the Authority;
- it is surrendered by the Licensee, subject to acceptance by the Authority; or
- the Authority issues a Licence for the Operation of Barakah NPP Unit 4 covered by this Licence, at which time this Licence shall expire, provided that any obligations of the Licensee under this Licence and/or the Law, which are intended to remain in force following the expiry of this Licence shall survive the expiry of this Licence.

This Licence is granted without prejudice to any future decision of the Authority regarding the suitability and specifications of the Operation of the Nuclear Facility or its structures, systems and components (SSCs).

Abdulla Al Suwaidi  
Chairman of the Board of Management of the Federal Authority for Nuclear Regulation

Issued in Abu Dhabi  
25 July 2023

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The Licence comprises this page, the preceding page and the following schedules, which together form an integral part of the Licence:

- Schedule 1: (1 page) Regulated Activities Authorised
- Schedule 2: (4 pages) Licence Conditions
- Schedule 3: (1 page) Application Documents
- Schedule 4: (1 page) Interpretation.

Any reference to 'schedule' in the Licence means a reference to a schedule of this Licence.



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## Schedule 1

### Regulated Activities Authorised

1. This Licence authorises:

- a) the Construction of the following Nuclear Facility: Barakah NPP Unit 4, located in Al Dhafra region of the Emirate of Abu Dhabi, United Arab Emirates, as described in the Licence application documents referenced in Schedule 3 (Application Documents);
- b) the following activities reasonably associated with the foregoing:

the manufacture, use, transport, possession, Storage, assembling, installation, inspection, those parts and stages of Commissioning comprising only the preoperational testing of SSCs prior to Nuclear Fuel load, and carrying out of civil works comprising the Nuclear Facility, including supporting and auxiliary equipment and associated facilities; and

- c) import of regulated items directly associated with the Construction of Barakah NPP Unit 4 to the State. This includes the import of especially designed or prepared components, equipment or technology directly associated with the APR1400 Nuclear Reactor, including but not limited to the import of:
  - i. items within or attached directly to the Nuclear Reactor vessel;
  - ii. equipment which controls the level of power in the Nuclear Reactor core; and
  - iii. components that contain or come in direct contact with or control the primary coolant of the Nuclear Reactor core.
2. The Licensee is required to obtain all necessary Licences for the conduct of any other Regulated Activity:
  - a) possession, use, manufacturing, import or handling of any nuclear material;
  - b) import of any equipment that contains nuclear material;
  - c) export or re-export of any nuclear material, equipment and technology specified in IAEA INFCIRC/254/Part 1 (as amended) or any nuclear-related dual-use equipment, materials, software and related technology specified in IAEA INFCIRC/254/Part 2 (as amended);
  - d) loading Nuclear Fuel into the Nuclear Facility; and
  - e) undertaking any other Regulated Activity, including, without limitation, those involving Radiation Sources not exempted by the Authority from Regulatory Control.
3. The Licensee shall obtain all necessary licences, permits and authorisations from other government entities for the conduct of any Regulated Activities authorised by the Authority under this Licence and update the Authority on any change relating to the aforementioned licences, permits and authorisations.

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## Schedule 2

### Licence Conditions

This Licence is subject to and the Licensee shall comply with the Licence conditions specified and incorporated below:

#### 1. Law, Regulations, Licence and the Licensee's Submissions:

The Licensee shall conduct the Regulated Activities authorised by this Licence in accordance with:

- The Law and any amendment thereto;
- The applicable regulations issued by the Authority pursuant to the Law;
- The terms and conditions of this Licence; and
- The Applications Documents, as may be updated, inclusive of documents references in the Application Documents, included as attachments to the Application Documents or submitted under separate cover.

2. **Transfer of Licence:** This Licence, any part hereof, or any right hereunder shall not be transferred or assigned, or in any manner disposed of, either voluntarily or involuntarily, directly or indirectly, through any transfer of control of this Licence or transfer of control of the Licensee to any Person.

3. **Modifications:** The Licensee shall obtain written approval of the Authority prior to implementing modifications to any of the following, which may result in significant Safety, Nuclear Security or safeguards implications:

- any Management System and organizational arrangements;
- the SSCs of the Nuclear Facility; or
- any of the Applications Documents submitted by the Licensee.

4. **Plan of activities:** The Licensee shall submit and update, as may be deemed necessary by the Authority, the schedules and timelines of the principal activities to be undertaken under this Licence.

5. **Regular reporting:** The Licensee shall provide to the Authority, within fifteen (15) days of the end of each calendar quarter, a report on the activities carried out under this Licence during that quarter.

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## 6. Reporting of unplanned events:

- a) The Licensee shall notify the Authority of any violation of the conditions of this Licence.
- b) The Licensee shall notify the Authority of any Accident or event during the conduct of the Regulated Activities authorised by this Licence, which affects or has the potential to affect quality, Safety, Nuclear Security or safeguards.
- c) The Licensee shall notify the Authority of each deficiency found in Design and Construction, which, were it to have remained uncorrected, could have affected adversely the Safety or Nuclear Security of the Nuclear Facility at any time throughout the expected lifetime of the Nuclear Facility, and which represents:
  - i) a material and/or significant breakdown in any portion of the Quality Assurance Program;
  - ii) a material and/or significant deficiency in final Design as approved and released for Construction such that the Design does not conform to the criteria and bases stated in the most recent version of the Preliminary Safety Analysis Report (the PSAR) or this Licence;
  - iii) a material and/or significant deficiency in Construction of, or material and/or significant damage to, an SSC which will require extensive evaluation, extensive redesign, or extensive repair to meet the criteria and bases stated in the PSAR or this Licence or to otherwise establish the adequacy of the SSC to perform its intended Safety function; or
  - iv) a material and/or significant deviation from performance specifications which will require extensive evaluation, extensive redesign, or extensive repair to establish the adequacy of an SSC to meet the criteria and bases stated in the PSAR or this Licence or to otherwise establish the adequacy of the SSC to perform its intended Safety function.
- d) The Licensee shall:
  - i) notify the Authority within seventy-two (72) hours of its finding of each reportable violation, Accident, event or deficiency in Licence conditions 6(a), 6(b) or 6(c) above; and
  - ii) submit to the Authority a written report within thirty (30) days. The report shall include a description of the reportable violation, Accident, event or deficiency, an analysis of the Safety implications and the corrective action taken, and sufficient information to permit review and evaluation of such corrective action. If sufficient information is not available for a definitive report to be submitted within thirty (30) days, an interim report containing all available information shall be filed with the

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Authority, together with a statement that indicates when a complete report will be filed with the Authority.

7. **Access to facilities and documents, and assistance:** The Licensee shall provide the Authority and its authorised representatives with access to any place, to any document, record or report or to any person under the Licensee's control or the control of any of the Licensee's affiliates, contractors, subcontractors, suppliers, agents or other legal entities acting on behalf of the Licensee, and shall provide all assistance necessary to enable the Authority to inspect in accordance with the Law the conduct of the Regulated Activities authorised by this Licence.
8. **Records:** The Licensee shall develop, maintain and implement arrangements for making and retaining adequate and detailed records of:
- the Design and Construction of the Nuclear Facility; and
  - compliance with the conditions and requirements of this Licence.

The Licensee shall retain all the foregoing records until the Nuclear Facility has been decommissioned.

9. **Fulfilment of commitments:** The Licensee shall comply with the commitments made in the Application Documents. Amendments to commitments made in the Application Documents shall be subject to the approval of the Authority's Director General.

**10. Not Used.**

**11. Construction Inspection and test plan:**

The Licensee shall provide the Authority with written reports on the completion and status of all the inspection items identified in the construction inspection and test plan (CITP) at six-monthly intervals.

**12. Not Used.**

**13. Not Used.**

**14. Not Used.**

**15. Corporate Governance:**

- a) The Licensee shall notify the Authority of:
- any changes to the Licensee's corporate identity and or any material change to Licensee's governance structure prior to making such changes;
  - any other material changes to the governance arrangements in Application Documents not later than sixty (60) days after the said changes are made.





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- c) The Licensee shall provide to the Authority annually upon the issuance of this Licence updated copies of the governance related Application Documents, unless otherwise specified by the Authority.



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### Schedule 3

#### Application Documents

1. Barakah Nuclear Power Plant Unit 4 – Application for Construction License and Related Regulated Activities by Emirates Nuclear Energy Company “Public Joint Stock Company” (ENEC Letter ENA-FANR-23-0046L, dated 19 June 2023)
2. Barakah Nuclear Power Plant Unit 4 – List of Application Documents for Construction License and Related Regulated Activities by Emirates Nuclear Energy Company “Public Joint Stock Company” (ENEC Letter ENA-FANR-23-0058L, dated 17 July 2023).



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#### Schedule 4

#### Interpretation

1. Capitalized terms used but not defined in this Licence shall have the meaning ascribed to them in Article (1) of the Federal Law by Decree No. 6 of 2009 Concerning the Peaceful Uses of Nuclear Energy.
2. The term "nuclear material" shall have the meaning ascribed to it in Article (1) of Authority's Regulation for the System of Accounting and Control of Nuclear Material and Application of Additional Protocol (FANR-REG-10), as amended by the Authority.
3. The terms "import", "export", "re-export" and "regulated items" shall have the meaning ascribed to them in Article (1) of Authority's Regulation for the Export and Import Control of Nuclear Material, Nuclear Related Items and Nuclear Related Dual-Use Items (FANR-REG-09), as amended by the Authority.



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