



Terms of Reference No. ED.NI.UJA.W.01 dated 14 November 2022
for the Supply of Formwork System for the «Construction of EL DABAA UJA Reactor Building walls from
elev. -19.300 (tendon gallery walls)»

Scope of Procurement:
«Formwork System for the erection of walls from elev. -19.300 (tendon gallery walls) of the EL DABAA NPP
UJA Reactor Building»

SECTION 1. Application

As per the attachment in section 8, the formwork system set will be used for the construction and installation works for erecting the UJA Reactor Building walls from elev. -19.300 (tendon gallery walls).

SECTION 2. Reliability Requirements

The formwork structure shall provide the following:

- strength, rigidity and geometric stability of the shape and dimensions under installation loads, concrete and reinforcement weight dead loads, as well as under transportation and process loads;
- design accuracy of the cast-in-situ structures geometric dimensions and the set quality of their surfaces depending on the formwork class;
- maximum reusability and minimum cost per one rotation;
- minimum adhesion to the set concrete;
- minimum number of typical element dimensions depending on the kind of the cast-in-situ structure;
- possible unloading of a structure of any complexity at any height;
- possible pre-assembly and readjustment (changing overall dimensions or configuration) at the construction site;
- provide access to the structure for the workers at any height;
- manufacturability and possibility to use mechanical means and automation for installation;
- quick dismantling of the connection elements;
- minimum material, labor and energy costs for installation and de-installation;
- convenient repair and replacement of failed elements;
- tight formlining surfaces;
- temperature and humidity conditions required for concrete to solidify and reach the design strength;
- the formlining surfaces should be neutral to the concrete mixture;
- formwork quick installation and dismantling without damaging the cast-in-situ structures and formwork elements.

SECTION 3. Maintenance Requirements

The formwork system Vendor shall do the following:

- provide design support by way of providing formwork panel configuration and issuing diagrams based on the drawings provided to the Buyers within two years from the formwork delivery date;
- dispatch a technical specialist to the Site upon Buyer's request no later than 10 work days after a request is provided, for consultation on whether it is possible to use the formwork while concrete pouring similar structures and on interchangeability of formwork details and components.
- possible theoretical and practical training on working with the formwork for the company employees working with the formwork. Upon this training official certificates shall be issued. These services shall be included into the total cost of the quotation.

SECTION 4. Safety Requirements

The connection (fixing) elements of all types of formwork shall be equipped with devices to prevent their spontaneous opening, unscrewing or disconnection during concrete pouring or other operational impact on the formwork, and maintain structures general rigidity.

The formwork structure shall provide protection against falling from height in the form of barriers. The barriers shall be provided along the whole work area from its outer side.

SECTION 5. Supply Requirements

The supply period shall be as per the contract between the parties and be approved with the Customer's Construction Operations Preparation Directorate beforehand.

The formwork shall be supplied completely, based on the initial data specified in these Terms of Reference.

The Vendor shall supply the product at its own cost and expense to the address: Dabaa Nuclear Power Plant, El Dabaa, Matrouh Governorate 5006201, Egypt.

SECTION 6. Requirements for the Form of the Information Provided

All the information shall be provided in the English, Russian, Turkish and Arabic language.

The formwork set shall be accompanied with operation documents:

- formwork data sheet;
- operation manual (with installation diagrams and allowable loads);
- formwork systems certificates;
- layouts (plans, sections, views);
- general specification for the whole product supplied with figures of elements.

SECTION 7. Additional Requirements

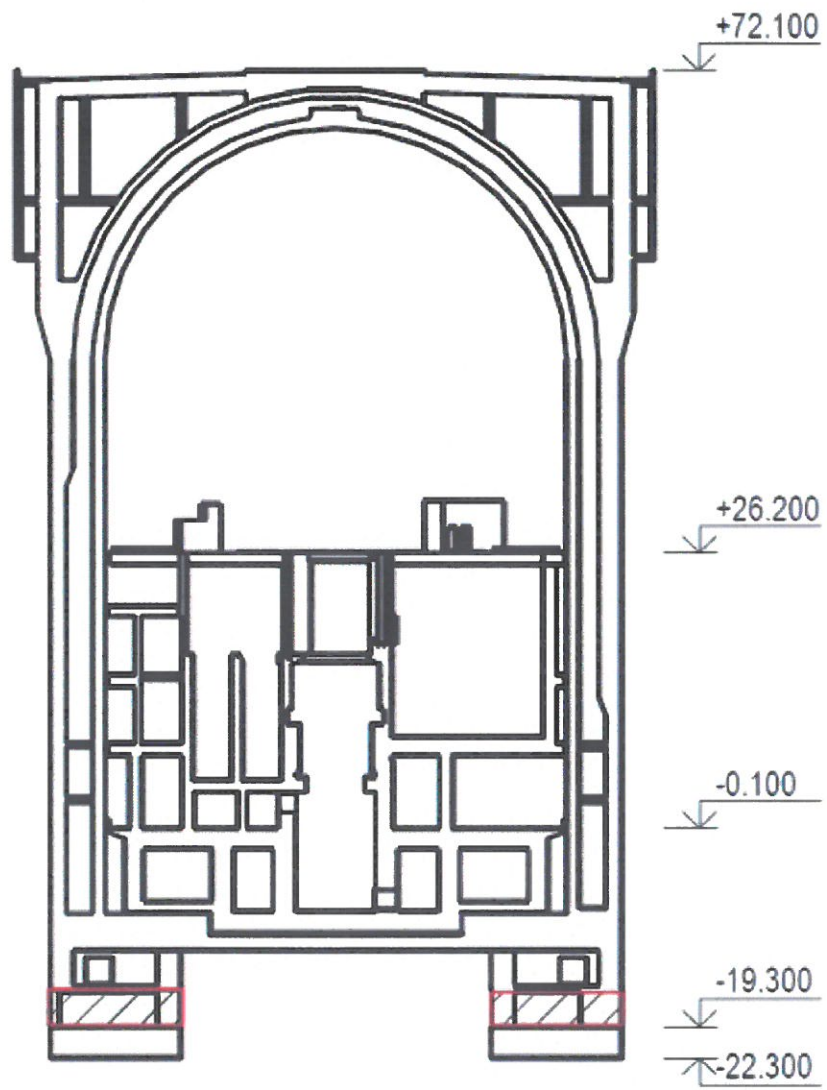
During the quotation implementation formwork coverage (m2) should be included into the as-built diagram (structural drawing).

Please contact the Construction Operations Preparation Directorate, in case of any technical questions.

SECTION 8. List of Attachments

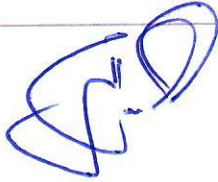

| Seq. No. | Document name | Document code | Number of pages |
|----------|--|---------------------------------------|-----------------|
| 1 | Reactor Building (10UJA). Walls from elevation -19.300 to elevation -15.550. | ED.D.P000.1.0UJA99&&&&&.012.DC.0005.E | 99 |

A - A



APPROVAL PAGE

Terms of Reference No.ED.NI.UJA.W.01 dated 14 November 2022 for the supply of formwork system for the "Construction of EL DABAA UJA Reactor Building walls from elev. -19.300 (tendon gallery walls)"

| POSITION | SIGNATURE | NAME |
|---|---|------------------|
| Head of Nuclear Island construction department |  | Dmitrii Sedogin |
| Production Preparation Department |  | Grigorii Golosov |
| | | |
| | | |
| | | |