



Petroleum Ports Authority

Date: 30.01.2024

Circular No. 01/2024

Attn: All port Users

Dynamic Under Clearance Services at Jebel Dhanna Ruwais Port

In line with our commitment to 100% HSE, we are introducing Dynamic Under Clearance services within the port of Jebel Dhanna Ruwais starting 01.02.2024.

What is DUKC?

Dynamic Under Clearance (DUKC) is a system that provides a consistent and scientific approach for determining and managing vessels' under-keel clearance (UKC), which is the vertical distance between the lowest point of the vessel and the seabed. UKC is an important factor for ensuring the safety of navigation and avoiding grounding incidents.

DUKC integrates real-time measurement of tidal heights and/or predicted measurement of tide heights and waves with modelled vessel motions to determine if a proposed transit for a particular vessel meets pre-determined UKC safety criteria. The system uses specially formulated algorithms to analyze a range of inputs, such as vessel dimensions, loading condition, speed, draft, trim, squat, and maneuverability, as well as environmental conditions, such as water depth, tide, current, wind, and waves, to provide reports on the proposed transit. The reports include the optimal time window, speed profile, and UKC profile for the transit, as well as the expected vessel motions and the probability of exceeding the UKC safety criteria.

Why use DUKC?

DUKC can enhance the safety of navigation and ensure safe transit of vessels to and from Jebel Dhanna Ruwais port by providing accurate and reliable information on the UKC for each vessel and each transit. DUKC can also optimize the port operations and increase the port efficiency by allowing deeper-draft vessels to access the port, reducing the tidal delays and restrictions, and increasing the cargo throughput.

DUKC has been proven to be a reliable and effective system for UKC management in many major ports around the world. DUKC has also been endorsed by international authorities and organizations, such as the International Maritime Organization (IMO), the International Association of Ports and Harbors (IAPH), and the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA).

How to request DUKC service for Jebel Dhanna Ruwais Port?

DUKC service will be available to all deep-draft vessels calling the port of Jebel Dhanna Ruwais. Vessels can raise a request for the service via their local agents by filling in the DUKC usage application form available on PPA website <https://ppa.adnoc.ae/en/forms-and-downloads/forms-and-downloads/dukc-application-form>.

The application form should be submitted at least 72 hours before the planned arrival/departure of the vessel. The port authority will review the application and confirm the applicability of the DUKC service for the requested transit. Once confirmed, the port authority will send the DUKC report generated from DUKC ® software to the vessel master and the local agent via email.

The DUKC report will include following information:

- Optimal time window for the transit
- Recommended speed profile for the transit
- UKC profile for the transit
- Expected vessel motions and the probability of exceeding the UKC safety criteria.

The vessel master shall review the DUKC report and use his due diligence to ensure that his vessel will always remain safely afloat within the port of Jebel Dhanna Ruwais. To reiterate, the vessel master shall remain fully responsible for ensuring the safety of his vessel, crew, cargo, and the environment whilst using the DUKC services, nothing will exonerate the vessel master of his responsibility.

Regards,



Capt. Jasim Al Khamiri
Senior Vice President
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