

CONCURRED:
Deputy Regional Manager, Marine Operations

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_____ 2021

APPROVED:
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_____ 2021

TASK ORDER

for the provision of services for the maintenance of the aids to navigation of the CPC-R Marine Terminal.

Service period: October 2022 - September 2025.

Information about MT SBS aids to navigation

The CPC-R Marine Terminal is a deep-water SPM technology based oil-loading terminal and is designed for loading the deep-draft tankers with crude oil. The CPC-R Marine Terminal is located within the borders of the Novorossiysk commercial sea port. The Shore Facilities of Marine Terminal and Small Boat Shelter (SBS) are located approximately 1.5 km to the east of the coastal village of Yuzhnaya Ozereyevka.

Small Boat Shelter provides refuge for the CPC-R auxiliary floating craft.



Fig. 1. CPC-R Marine Terminal Small Boat Shelter

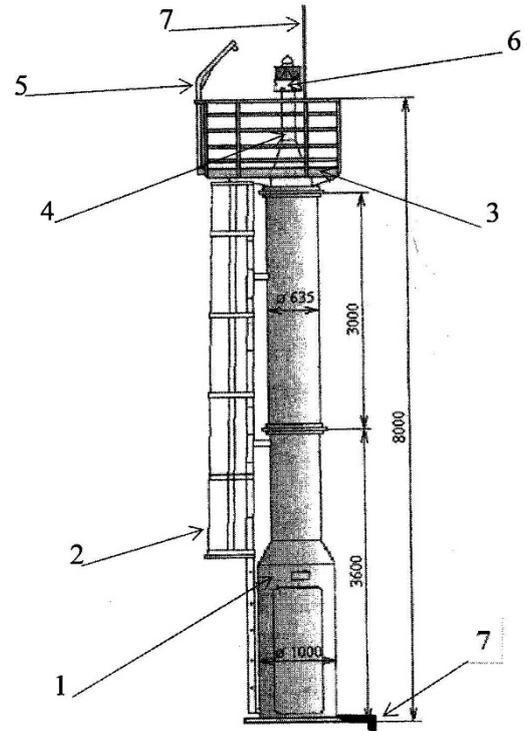
There are 3 (three) units of aids to navigation installed and operated in MT SBS:

1. Landmark beacon "Kolonna 8-E-I" (adm. no. 2002).

- Beacon height – 8 m.;
- Height of beacon light from the base is 8.3 m;
- Stand-alone power supply with solar module and battery;
- Weight of the landmark beacon without equipment – 1200 kg.

The landmark beacon is installed at the SBS berth end and is a steel cylindrical tower with a room for electrical equipment and standalone power sources in the lower section, and with the platform with a railing at the beacon top where light table, lightning protection and crane beam are installed. Navigation LED lantern with solar module (model SL23) with the light code **Пр(2)3с**, is installed as the light-optical equipment, light color - red.

Vertical ladder with a back railing serves for climbing the beacon. The landmark beacon is painted red.



1 – секция нижняя; 2 – трап с ограждением; 3 – площадка верхняя; 4 – подфонарный столик; 5 – кранбалка; 6 – фонарь навигационный; 7 – молниезащита с заземлением

Fig. 2. Landmark beacon.

(1 – lower section; 2 – ladder with railing; 3 – top platform; 4 – lantern desk; 5 – davit; 6 – navigation lantern; 7 – lightning protection and grounding)

2. Right side floating warning buoy H 400/6 (adm. no. 2003). Installed on the SBS approach channel and equipped with the LED navigation lantern with solar module (model SL60) with the light code **Пр3с**, light color - green;

3. Right side floating warning rotating buoy H 400/6 (adm. no. 2004). It is installed on the approach channel and equipped with LED navigation lantern with solar module (model SL60) with the light code **Ч**, light color - green.

Floating buoys have the following data:

- Height of light above the water line - 3m.
- Draft – 3m.
- Anchoring depth – 8.1 m and 7.9 m.
- Buoy weight – 60 kg.
- Weight of anchor – 1 t.
- Diameter of anchor chain - 19 mm.

Description of Contractor's Services (tender winner)

The Contractor shall provide the Company with the services for maintenance of the aids to navigation of the CPC-R Marine Terminal:

- landmark beacon "Kolonna 8-E-I", adm. no. 2002.
- right side floating warning buoy H 400/6, adm. no. 2003;
- right side floating warning rotating buoy H 400/6, adm. no. 2004.

The Contractor shall provide the services over a contractual term, according to the following schedule:

Period of Provision of Services	Types of Maintenance				
	Daily (ETO)	Monthly (TO 1)	Quarterly (TO 2)	Seasonal (TO 3)	Annual (TO 4)
January	√	√			
February	√	√	√		
March	√	√			
April	√	√		√	
May	√	√	√		
June	√	√			
July	√	√			
August	√	√	√		
September	√	√			√
October	√	√		√	
November	√	√	√		
December	√	√			

Types of Maintenance	Maintenance Scope	
	Landmark beacon (adm. no. 2002).	Floating warning buoys (adm. no. 2003 and adm no. 2004)
Daily (ETO)	1. Visually inspect the aid to navigation working capacity, compliance of the color and light code with the operational data.	1. Visually inspect the aid to navigation working capacity and its location, compliance of the color and light code with the operational data.
Monthly (TO 1)	1. Perform the external inspection of aid to navigation and determine its technical condition (mechanical damage, corrosion protection, completeness); 2. Test the flashing device function; 3. Clean and wipe the solar cell panel and optics; 4. Check for automatic switching on of backup power supplies.	1*. Perform external inspection of buoy (completeness, condition of body, top shape and color); 2*. Check the serviceability of the equipment installed on the buoy; 3*. Clean and wipe the solar cell panel and optics; 4*. Clean the buoy body.

Quarterly (TO 2)	<ol style="list-style-type: none"> 1. Perform preventive inspection and maintenance of batteries (measure load/no load voltage, refill electrolyte (if necessary), clean the terminals from oxides); 2. Check optics fastening to the beacon platform, including tightening (if necessary); 3. Check the insulation resistance of the cable and contacts of the plug connectors; 4*. Check the aid to navigation actually observed parameters and their compliance with the data stated in the navigation guides (aid to navigation open water testing). 	1*. Check the aid to navigation actually observed parameters and their compliance with the data stated in the navigation guides (aid to navigation open water testing).
Seasonal (TO 3)	<ol style="list-style-type: none"> 1. Replace aid to navigation for maintenance in the Service Center. 2. Inspect the lightning protection and grounding. 	<ol style="list-style-type: none"> 1*. Replace aid to navigation for maintenance in the Service Center. 2*. Check optics fastening to the beacon body. including tightening (if necessary); 3*. Perform preventive inspection and maintenance of batteries (measure load/no load voltage, measure capacity, measure insulation resistance, clean the terminals from oxides). 4*. Installation / removal of top figures.
Annual (TO 4)	1. Paint the structural elements of the beacon.	<ol style="list-style-type: none"> 1*. Adjust the sensitivity of the optics solar cell; 2*. Check the technical condition of the anchor device and counterweights, clean them from fouling; 3*. Check the location of the floating buoy using instrumented method (control of coordinates).

* these activities are carried out involving the floating craft.

A set of measures to be performed as part of maintenance service.

1. Contractor to maintain the aids to navigation normal conditions and characteristics.
2. Contractor to perform scheduled aids to navigation maintenance according to the scope and schedule listed above. It is not allowed to reduce the maintenance scope, nor leave aids to navigation inoperable after appropriate maintenance either.
3. In case of loss of floating warning buoy the Contractor shall provide a temporary replacement with similar specifications.
4. In case of breakage/failure of optical equipment or power supply units the Contractor shall restore their performance.

5. If aids to navigation are repaired and/or serviced in the Service Center conditions, as well as in the case of aids to navigation failure and the inability to restore its performance the Contractor shall provide a temporary replacement with similar specifications.
6. Contractor shall maintain the aids to navigation completeness on a regular basis without additional costs to Company.
7. Contractor shall put aids to navigation into service both failed or at the request of the Company within 24 hours maximum. Exceptions may be the cases when these activities are not possible due to the weather conditions and/or force majeure. Causes of the aids to navigation failures may be technical (damage, failure) and natural (floating buoy lost or displaced from its location as a result of wave action).
8. Contractor shall promptly notify the FSBA "Administration for the Seaports of the Black Sea" and General Directorate of Navigation and Oceanography of the Ministry of Defense of the Russian Federation of the changes in the navigational environment in the MT SBS and its approaches.

All services rendered on the aids to navigation inspections, maintenance and current repairs shall be performed in accordance with the requirements of the regulatory and technical documentation in force in the Russian Federation territory and the equipment operating instructions;

Contractor shall independently and at its own expense involve the necessary boats and other equipment (including the required permits) for the aids to navigation maintenance and repair.

Contractor must have all necessary permits to carry out this type of activity (taking into account the work on the HPF territory and in the customs control zone and working at height). Contractor shall also provide all personnel with appropriate certification (including fire basics and industrial safety, category "A" and "B2.7"), training, PPE, tools, equipment and supplies.

Originator:

Marine Operations Specialist

A. Zhdanov