



ENVIRONMENT-FRIENDLY TECHNOLOGY IN FIELD OF NEW PORT TERMINALS' DESIGN AND CONSTRUCTION: PORT OF KALININGRAD EXPERIENCE

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at the Workshop "New Green Cruise Port facilities construction and management during formation period"

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РОСМОРПОРТ

ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ
УНИТАРНОЕ ПРЕДПРИЯТИЕ

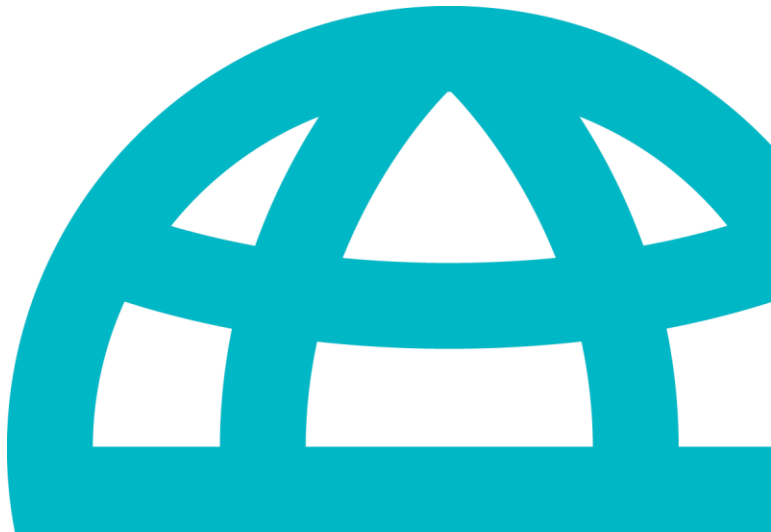


Environment- friendly technology in field of new port terminals' design and construction: Port of Kaliningrad experience

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Cruise and Ferry terminal in Pionerskiy (3D model)

! In accordance with Russian Federal Law any project of construction of maritime port terminal (cargo, passenger etc.) is the subject of state environmental assessment on federal level

To pass state environmental assessment, it is necessary the following:

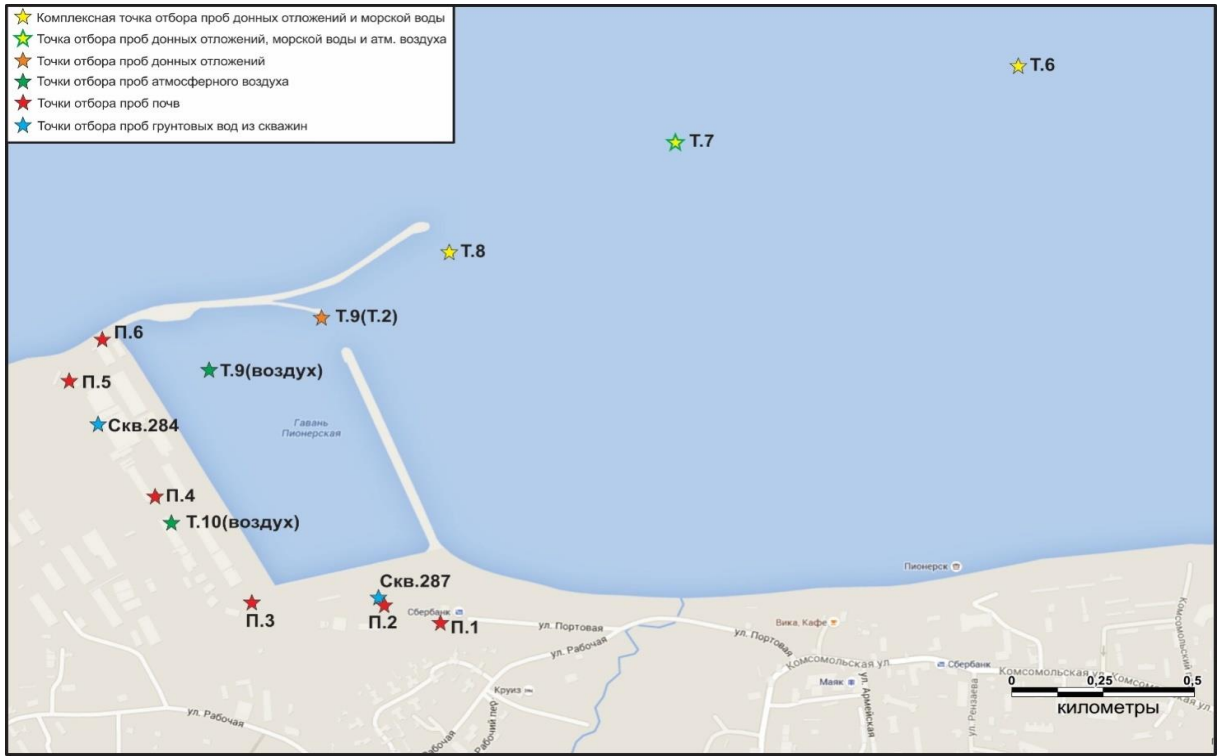
- 1) To develop the section “Environmental impact assessment (EIA)” as a part of the project documentation
- 2) To carry out informing the public on the planned activities
- 3) To organize and carry out public discussions of the construction project, including EIA
- 4) To approve with Russian Federal Agency on fishery (in Moscow) materials of damage assessment to water biological resources (fish) including approval of a type of damage reimbursement
- 5) To send to Russian Federal Service on supervision in the field of environmental management (Rosprirodnadzor) a complete set of the project documentation, including EIA – for carrying out the state environmental assessment

Environmental researches in the beginning of designing of new terminal:

- ✓ air quality researches
- ✓ sea water quality researches
- ✓ marine sediments quality researches
- ✓ ground quality researches
- ✓ ground waters quality researches
- ✓ observations of birds and marine mammals



Based on the received data these environmental researches and project decisions the section EIA was developed



Points of sample-taking in Pionerskiy construction site

Dredging and dumping into the sea

**To make dumping of ground soil into the sea possible a special permission of authorized state body is needed
(according to London and Helsinki Conventions)**

In Russian Federation → Federal Service on supervision in the field of environmental management (Rosprirodnadzor)

To get special permission you have to prepare a certain set of docs:

- ✓ characteristics of the extracted soil and the ground soil within estimated dumping area
- ✓ sea water characteristics
- ✓ characteristics of water biological resources
- ✓ summary of EIA
- ✓ ecological monitoring program



Dredging and dumping into the sea

The main criteria for a possibility of dumping into the sea is: no excess of contamination degree of the dumped sediments in comparison with the ground soil within dumping area
(according to London and Helsinki Conventions)

The indicators of contamination:

- ✓ halogen organic and chlorine organic compounds
- ✓ hydrargyrum, cadmium, lead and their compounds
- ✓ oil and oil products
- ✓ tin organic compounds
- ✓ radioactive substances



New port terminal in Pionerskiy

Spring of 2016:

public discussion in two municipalities of the Kaliningrad region

and

approval of materials of damage assessment to water biological resources in Russian Federal Agency on fishery (Moscow)

**State environmental assessment in Rosprirodnadzor
(branch in Kaliningrad region)**



12th of August 2016: positive conclusion of State environmental assessment. The project was recognized to conforming all ecological requirements, regulations and standards of the Russian Federation and the it was recommended for implementation

New port terminal in Pionerskiy

Environmental protection measures in the period of a construction:

- ✓ monitoring of all components of the environment
- ✓ reuse of the most part (near $\frac{3}{4}$ total amount) of sandy ground soil extracted during dredging operations – for formation of artificial land as a part of the future terminal's territory
- ✓ separate collection of all kind of generated wastes and its treatment
- ✓ collection of all generated sewage and its transfer to treatment facilities
- ✓ restriction of construction works on the sea water area during spawning of fishes
- ✓ reimbursement of damage to water biological resources by means of cultivation and release of fish juveniles
- ✓ reimbursement of damage to green plantings (trees) on the construction site by payment in the municipal budget and landing of the same number of green plantings (trees) in the place specified by municipality

New port terminal in Pionerskiy

Environmental protection measures during operational period:

- ✓ monitoring of all components of the environment
- ✓ reuse of sandy ground soil extracted during maintenance dredging – for feeding municipal beaches which are exposed to the severe erosion
- ✓ separate collection of all kind of generated wastes and its treatment
- ✓ all kind of sewage (including sewage waters collecting from passenger ships and ferries) will be pumped by pipeline to municipal sewage system and further to municipal sewage treatment facilities
- ✓ collecting of all rain and thawed waste waters and its treatment on local terminal's facilities

New port terminal in Pionerskiy

Actual activity:

- ✓ environmental monitoring program was developed before the construction
- ✓ samples-taking and analysis are made regularly (at least once in a quarter)
- ✓ overseeing log books are filled out (plant and animal life, and water biological resources)



Current results of environmental monitoring demonstrate that influence of construction works on environment is admissible and on control indexes does not exceed the established standards and limits

! the detailed annual report to the federal state authority !

New port terminal in Pionerskiy

Damage compensation:



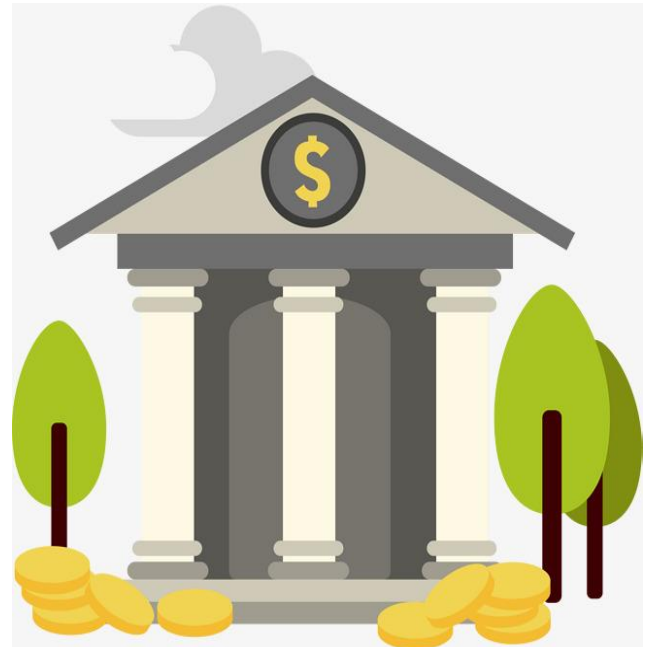
August 20th 2018

Nearly 68 thousand whitebaits of the Baltic whitefish were issued to the Curonian Lagoon of the Baltic Sea

New port terminal in Pionerskiy

Damage compensation:

- ✓ compensation payment has been transferred in the budget of Pionerskiy municipality
- ✓ place for landing of the same number of trees has been agreed by municipality





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Thank you for your attention!

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