

Level Sensors

Reference List

1.0

«LUKoil» - marine terminal «RP-2» Vysotsk, Leningrad region

Alarm loading of petrochemicals on the railroad loading trestle in the Reservoir Park «RP-2 - LUKoil»

Alarm loading in the railroad tank on the loading trestle



Reservoir Park «RP-2 - Vysotsk»

Equipment installed in the Reservoir Park:

- 176 x Ultrasonic Level Sensors of the signaling system of emergency loading on the railroad trestle

Signaling of loading level in 12 points in the reservoir tank «Komsomolskogo-na-Amure Oil Refining Plant»

Komsomilsk-na-Amure, Khabarovsk region

Customer: «Rosneft» **Number of reservoirs:** - 12

Controlled parameters: - signaling of emergency level



Equipment installed in the Reservoir Park:

- 12 x Ultrasonic Level Sensors
- TSS/Alarm system for controlling level with light and sound signal for overloading



Ultrasonic Level Sensor on the reservoir of Komsomolskogo-na-Amure Oil Refining Plant

Reservoir Park of the Fuel Filling Complex (FFC) of the "Pulkovo" airport and modernization of Centralized System for Refueling of the Planes (CSRP)

Pulkovo airport, St Petersburg

Customer: ZAO «Soveks» **Number of reservoirs**: -8

Controlled parameters: - measuring the level in the reservoirs with aviation fuel

- signaling of the emergency alarm

- automatic support of the pressure in the pipelines of CSRP

- control of pumps and valves



Daily Reservoir park of the PULKOVO Airport



Level Sensor on the reservoir **Equipment installed in the Reservoir Park**:

- 8 x Ultrasonic Level Sensors signaling loading
- 8 x level controllers
- Upper loading level signaling system
- System for distance control of the loading level
- Control system for CSRP and support of the pressure in the pipelines

Liquefied gas

Level measuring system in the Raw Materials Base of Liquefied Petroleum Gas (RMBLP)

Kirishi, Leningrad region

Customer: OOO «SurgutNeftGas»/OOO «Kirishinefteorgsyntez»

Number of reservoirs: - 28

Controlled parameters: - measuring level

- signaling emergency loading level

Fluids: - liquefied propane/butane

liquefied isobutene

- liquefied butane
- liquefied pentane
- liquefied isopentane



Equipment installed in the Reservoir Park:

- 31 x ultrasonic level sensors, type UTS



Ultrasonic level Sensor on the reservoir with liquefied butane

System for measuring the level of bullets of Gazofraktsionnoy installation (GFI)

Kirishi, Leningrad region

Customer: OOO «SurgutNeftGas»/OOO «Kirishinefteorgsyntez»

Number of reservoirs - 24

Controlled parameters: - measuring level

- upper loading signaling

Fluids: - liquefied gas – propane/butane



Equipment installed on the GFI:

24 x non-contact level measuring devices TS-02

24 x ultrasonic level sensors 2 x operation stations

Aggressive fluids

Reservoirs for storage of sulfuric acid on the Installation for the Production of Sulfuric Acid (IPSA)

Kirishi, Leningrad region

Customer: OOO «SurgutNeftGas»/OOO «Kirishinefteorgsyntez»

Number of reservoirs: - 14

Контролируемые параметры: - measuring level

- upper level signal

Fluids: - sulfuric acid

- oleum

- acid sludge



Equipment installed on the Installation for the Production of Sulfuric Acid (IPSA-1):

14 x ultrasonic level sensors



Ultrasonic level sensor of upper loading of sulfuric acid

Kirishi, Leningrad region

Customer: OOO «SurgutNeftGas»/OOO «Kirishinefteorgsyntez»

Number of reservoirs: - 22

Controlled parameters: - measuring level

- upper level signal

Fluids: - concentrated sulfuric acid

- alkali

- ammonia liquor

- foam generator



Equipment installed in the Reservoir Park:

- System for level measuring and control in 22 reservoirs
- 44 x non-contact level measuring devices TS-02
- 22 x ultrasonic level sensors
- 2 x Operation stations
- 1 x Local technological Station (LTS)

Reservoir Parks Kirishi, Leningrad region

Customer: OOO «SurgutNeftGas»/OOO «Kirishinefteorgsyntez»

Number of reservoirs: - 20

Controlled parameters: - measuring level

- upper level signal

Fluids: - fuel oil

diesel fuel

vacuum gas oil

- atmospheric gas oil



Equipment installed in the Park for Mixing Dark Fuel PMDF-2:

- Level measuring and control system in the 20 reservoirs
- 20 x non-contact level measuring devices TS-02
- 20 x ultrasonic level sensors of the upper loading level
- 2 x operation stations



Non-contact level measuring device and ultrasonic

Scouring Installations

Kirishi, Leningrad region

Customer: OOO «SurgutNeftGas»/OOO «Kirishinefteorgsyntez»

Number of reservoirs: - 10

Controlled parameters: - measuring level

- upper level signal

Fluids: - waste water containing oil

- domestic waste water

- oil



Overview of the reservoir park of scouring installations sensor on the reservoir with water containing oil



Non-contact level measuring device and level

Equipment installed in the Reservoir Park:

- Level measuring and control system in the 10 reservoirs
- 10 x non-contact level measuring devices TS-02
- 10 x ultrasonic level sensors
- 1 x Operation Station
- 1 x Local Technological Station (LTS)

Park LAB-LABSA

Kirishi, Leningrad region

Customer: OOO «SurgutNeftGas»/OOO «Kirishinefteorgsyntez»

Number of reservoirs: - 21

Controlled parameters: - measuring level

Fluids: - alkylate

- product LAB (linear alkylbenzene)

- product LABSA (Linear alkyl benzene sulfonic acid)



Equipment installed in the park LAB-LABSA:

- Level and temperature measuring and control system in the 21 reservoirs
- 21 x non-contact level measuring device TS-02
- 21 x multi-point temperature measuring device T7/MPX in the 6, 9 and 12 points



Set of measuring devices covered with protectivehousing

Park for Mixture of Light Fuels PMLF-1

Kirishi, Leningrad region

Customer: OOO «SurgutNeftGas»/OOO «Kirishinefteorgsyntez»

Number of reservoirs: - 47

Controlled parameters: - measuring level

- measuring of temperature in 12 points

- upper loading signal

Fluids: - petrol

diesel fuel

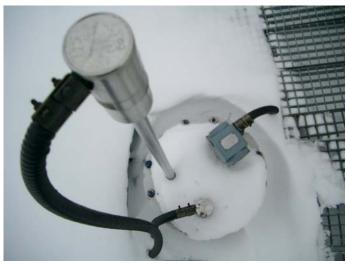
- fuel 251

- paraffin
- isopentane
- isomerizate
- NK62



Equipment installed in the Park for Mixture of Light Fuels, workshop No 3:

- Level and temperature measuring and control system in the 47 reservoirs
- 47 x non-contact level measuring device TS-02
- 47 x multi-point (12 x points) temperature measuring device T7/MPX
- 47 x ultrasonic level sensors of upper loading level -16 x ultrasonic level sensors indicating water



in the "double" space



Level measuring device, multi-point temperature measuring device space between walls of the reservoirs and ultrasonic level sensor installed on one flange

Ultrasonic sensor indicating leakage in the

«PAREKS»

Kirishi, Leningrad region

Customer: OOO «SurgutNeftGas»/OOO «Kirishinefteorgsyntez»

Number of reservoirs: - 13

Controlled parameters: - measuring level

- temperature control in the 1st point

upper loading signalcontrol of pumps

Fluids: - liquid paraffin

- toluene - solvent



Equipment installed in «PAREKS»:

- Level measuring and control system in the 13 reservoirs and control of the pump work
- 13 x non-contact level measuring devices TS-02
- 13 x ultrasonic level sensors
- 2 x Operation stations
- 1 x Local Technological Station (LTS)



Operation stations of the level control and pump work system

Система коммерческого учета нефтепродуктов TSS/Oil в резервуарном парке 3AO «Брянск-Терминал М» Bryansk

Customer: «Rosneft»

Number of reservoirs: - 10

Controlled parameters: - measuring level

- measuring density

measuring temperature in 5 pointsmeasuring level of bottom water

- upper level alarm

Fluids: - petrol A-76

petrol AI-92 petrol AI-95

- diesel fuel (summer/winter)



«Bryansk bulk plant»

Equipment installed on "Bryansk Terminal M"

- Level and temperature measuring and control system in the 10 reservoirs
- 10 x non-contact level measuring devices TS-02
- $10 \times \text{multi-points}$ (5 x points + bottom water measuring device) temperature measuring device T7/MPX
- 10 x ultrasonic level sensors of upper loading



Loading facility of petroleum products