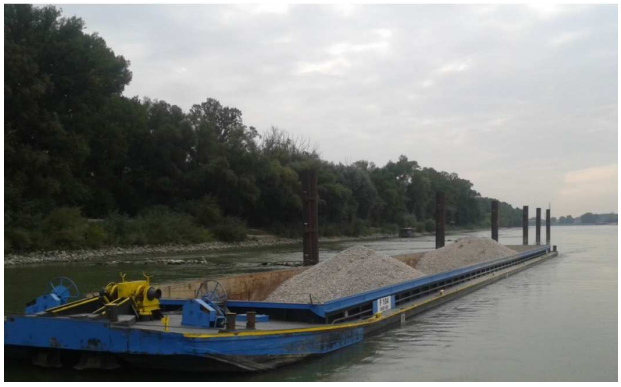
Remote Monitoring of Dredging Works

OTT PLS and OTT netDL installed in dredging barges on the river Danube



Background

Until 2010, the level marks of the dredging barges providing the basis for the calculation of the cubatures of dredged material were usually read out by the dredging companies.The Austrian waterway management/Österreichische Wasserstraßen-gesellschaft mbH - via donau made only random checks for plausibility.

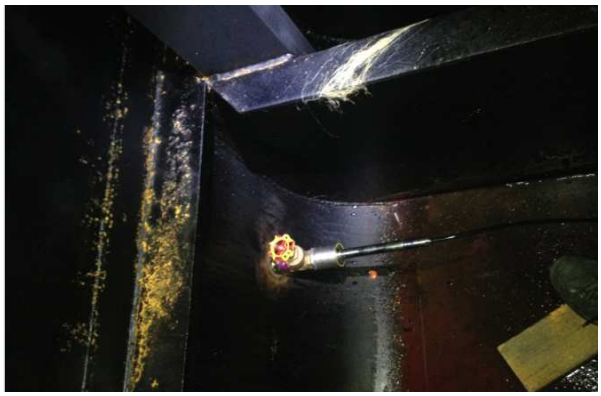
As the *via donau* had doubts about the correctness of the read out data, they decided to use its own personnel for uninterrupted control of the dredging barges

For the dredging works in the river Danube the volume of dredged gravel/crushed rock is evaluated by converting the read-out level marks of the barges into water displacement volumes via a calibration table. So far the level marks readings were made manually.

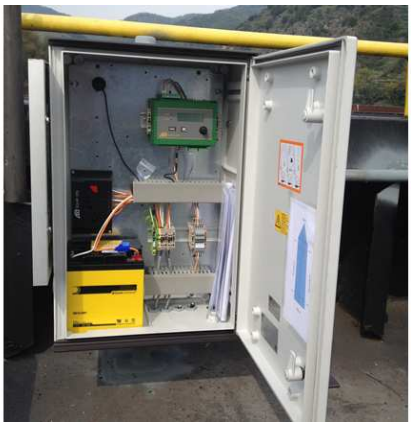
To reduce the cost for external documentation and to guarantee an automatic and standardized procedure for cubature calculations, an automatic system has been introduced, monitoring the draught of the barges and from this also evaluating the cubatures. These data now provide a reliable basis for correct billing of dredging works.

Monitoring Solution

The barges were equipped with OTT PLS pressure probes which are installed at the point of the level marks inside the barges. In a shipyard a lockable pipe was welded into the wall of the barge for this purpose.



The evaluation and the calculation of the dredged material is made directly in the OTT netDL500 and can be controlled by the crew members, directly from the display. The data is monitored in 15 minute intervals and transmitted hourly via GPRS modem to the purchaser via donau.



Advantages

- The system is modular
- The control cabinet is connected to the barge by a standard plug and can be removed at any time
- Further it is possible to upgrade the system with a GPS sensor. Actually the vessel's position is recorded externally by „DoRis Tracks".
- The dredging works are now continuously monitored. Loads can be reliably determined at any time.
- Thanks to the efficiency of the netDL500 and the PLS an external power supply is not required.

Technology

OTT PLS
OTT netDL500
OTT control cabinet / solar power supply

More information on OTT solutions and products: www.ott.com