Remedial strategy at superfund site calls for ORGANOCLAY™ sediment cap

U.S. EPA and the Port of Portland signed a legal agreement to assess and clean up contaminated river sediment at the Port's marine Terminal 4. This agreement authorizes the first early action cleanup project in the Portland Harbor Superfund Site and reflects the Port's commitment to accelerate clean up of contaminated sediments in the Willamette River. The work will reduce risks to human health and the environment prior to the completion of the larger Portland Harbor investigation and will allow continued operation of the marine terminal.

PROJECT DETAILS

Port of Portland Nearshore Cap

Design Engineer: Anchor QEA

General Contractor: Hickey Marine

LOCATION

Portland, Oregon, USA

PRODUCTS USED

ORGANOCLAY

Bulk ORGANOCLAY easily accessible by barge (left). ORGANOCLAY being placed along the waterway embankment (middle). The subaqueous strategic application of the organophilic clay sediment cap (right).

CHALLENGE:

Upon completion of investigative work, finding showed that the presence of various contaminants in the sediments, which included petroleum products, metals, pesticides, and polychlorinated biphenyls (PCBs), were still at levels that posed a threat to human health and the environment.

The Port of Portland and U.S. EPA coordinated sediment cleanup with upland cleanup work, which took place concurrently under the oversight of the Oregon DEQ.

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SOLUTION:

The remediation strategy included dredging and off-site disposal of sediments exhibiting the highest chemical concentrations. Where dredging was not feasible, a organophilic clay nearshore cap, utilizing 850 tons of CETCO's bulk ORGANOCLAY, was constructed to isolate petroleum contaminated sediments from aquatic receptors and control a potential ongoing source to nearby areas. In addition, stabilization of the Wheeler Bay bank was also part of the remedial strategy in order to minimize contaminant migration to the river. Lastly, dredging and off-site disposal of the contaminated sediments in Slip 3 at Berth 410 commenced in support of overall risk reduction in the Removal Action Area.

RESULT:

The bulk ORGANOCLAY sediment cap was installed with ease and is performing as expected.

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