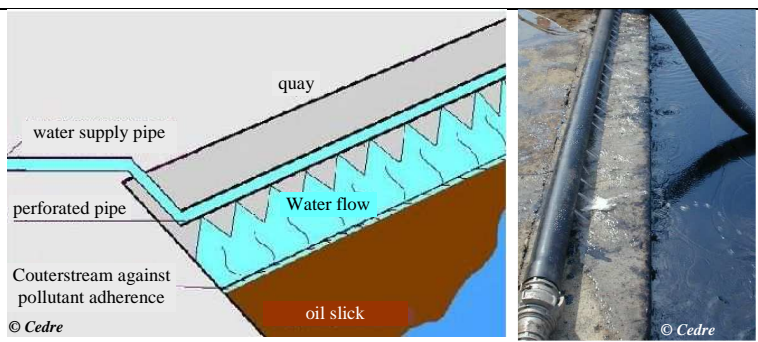


PROTECTING QUAYSIDES WITH WATER SCREENS

SCOPE

Substrates: hard surfaces
Pollution: all types
Pollutant: fluid to highly viscous
Harbour area

Using a water screen to protect a quay wall



EQUIPMENT NEEDED

- PVC tube or a perforated fire hose
- a pump delivering about 20m³/h or a seawater supply system

DESCRIPTION/PRINCIPLE

Residual floating oil slicks regularly soil quay walls in harbour areas. When the tidal range is extensive, the soiled area may get out of hand. A simple system can be installed to protect quays efficiently and reduce laborious and fastidious clean-up operation. A water supply pipe (PVC piping, fire hose) is perforated (at 15 cm intervals) and laid near the edge of the quay and delivers a water screen that slides down the face of the quay wall. As oil is hydrophobic, the water film will create a barrier between the slick and the quay and in so doing protect the quay wall from soiling by oil.

This system can be set up preventively as a permanent system (a pipe and a pump laid directly in the water) in areas where oil may tend to accumulate naturally (in quay corners for instance) or else in other areas where will tend to be trapped as a natural course of events. It can also be deployed in the event of a spill: hole in a fire hose connected to a pump that is pumping seawater directly out of the docks or to a fire hydrant providing seawater and not the port's fresh water supply system.

This protective method for quay walls can also be used for protecting slipways and docks particularly when they accommodate ferries carrying vehicles to avoid tyres from slipping on the oil. The system can also be integrated in a fixed installation that is part of the port infrastructure requiring protection by installing a pipe and nozzles or a perforated fire hose in a purpose-built gutter.

CONDITIONS OF USE

Pollution: fluid (fresh oil) to viscous pollutants (HFO) and oiled waste
Substrate: concrete quay walls, docks and slipways.
Site: harbour area

IMPACT ON THE ENVIRONMENT

Temporary changes to water conditions (such as whirlpools or areas of turbulence).

PERFORMANCE

Yield: this device is easy to install preventively and is very effective.

Implementation: is immediate, all you have to do is open a valve if the system is connected to the fire extinguishing system, or requiring a technician if the system has to be deployed.

Waste: N/A

OBSERVATIONS

Reuse disused fire hoses.

Also read "*P07 Protection par produit filmogène*" (French version).