

Client
Location

Port of Brisbane

Brisbane, Queensland, Australia

ACQUA/Muddy River Product(s): Induced Cyclonic Separator (IC-SEP*) MASS and Vertical Gravity Separator (VGS*)

Objective

To remove oily contaminants from bilge water and diesel refueling spills so that the impact to the environment at the Port Of Brisbane, Queensland Australia Operations Base (Whyte Island) is kept to a minimum.



Background

The Port of Brisbane Corporation decided to embark upon a system of environmental controls to limit the impact they have on the surrounding marine environment. During an environmental audit, it was found that the discharge of bilge water and the possibility of refueling spills constituted a major risk.

The Port Corporation decided that the best way to treat their problem was to install a Vertical Gravity Separator (VGS*) and an Induced Cyclonic Separator (IC-SEP*) to treat all the bilge water from their vessels. The system was designed to allow for the additional treatment of accidental spills from Port Corporation refueling operations.

Solution

The challenge was to design a system that would allow potentially contaminated waters to be treated and discharged directly to the marine environment. The VGS* is now generally accepted as the most efficient way to separate free oil from oil/water system. So the VGS* was chosen as the primary treatment device.

The VGS* alone is not able to completely eliminate the oil from partially emulsified oil/water mixture. The IC-SEP* was chosen as the means by which the remaining oils could be removed. The IC-SEP* continually aerates the effluent liquor to remove any remaining oils in the system.

The oils are constantly removed, concentrated and collected for easy disposal. Because of the low level of oil remaining in the cleaned water, it can be discharged directly to storm water without endangering the environment.