Jellyfish®

CASE STUDY

Marine Terminal Uses Jellyfish to Treat Stormwater

Federal Marine Terminals in Thorold, Ontario, a major operator of port cargo facilities in the Great Lakes region, has installed Jellyfish® as an integral part of its environmental protection plan. The Jellyfish is being used to prevent untreated stormwater runoff from entering nearby waters.

The Thorold location houses a large coke pile that previously threatened the safety of local waterways, including the adjacent Welland canal. Jellyfish's ability to filter neutrally-buoyant particles made it an effective choice for treating stormwater runoff at this site.

Fine Sediment Filtration Required

Runoff from the site's coke pile is collected in a single catch basin, and is pumped via a low-pressure line to a Jellyfish unit for filtration. Due to the necessity of removing extremely fine particles, including small hydrocarbon-based particles, installing a filtration system was essential. Jellyfish's ability to capture particles sized 4-microns or greater made it a clear choice for this site.

In addition, Jellyfish's internal pretreatment process allows for floatable hydrocarbon capture, so any oils on this portion of the site will also be kept out of the environment.

Jellyfish Offers Flexibility in Design

A special challenge posed by this site was the fact that it afforded less than three feet of cover to the top of the discharge pipe invert. This problem was easily overcome by Jellyfish's significant design flexibility, in this case through the installation of access doors. To ensure that the system would not incur any hydrocarbon seepage over time, Imbrium® Systems produced this Jellyfish structure out of fiber-reinforced plastic (a.k.a. FRP or fiberglass).

Ease of maintenance and installation were also important considerations. Installation was quick and simple. The FRP Jellyfish is extremely lightweight which allowed the contractor to install it in a matter of minutes using a very small crane.

imbrium

www.imbriumsystems.com

USA: (888) 279 8826
CANADA: (800) 565 4801
INTERNATIONAL: +1 (416) 960 9900

Jellyfish®

CASE STUDY

Due to the industrial nature of this site, plant personnel are available to perform manual backwashing of cartridges if required more frequently than in typical urban stormwater situations. Because Jellyfish is easy to inspect and maintain, on-site employees can carry out all inspections and maintenance themselves, which increases cartridge life and decreases life cycle costs. Jellyfish's backwashable cartridges are lightweight and easy to maintain compared to traditional heavy granular media filter cartridges or large sand filters.

At the Thorold site, the implementation of an adaptive management strategy (i.e., adjustment through observation) will allow a more regular inspection and maintenance program to be formulated over time, keeping costs to a minimum.

Industry Leader Takes Initiative to Protect Environment

Treating stormwater runoff at industrial locations like the Thorold terminal is crucial to ensuring the safety of nearby surface water and underlying groundwater resources. Federal Marine Terminals made the environmentally significant decision to treat its stormwater runoff using state of the art fine sediment removal technology - Jellyfish. This will go a long way in keeping potential contaminants out of the natural environment.

Paul Pathy, Chairman of Federal Marine Terminals states in a recent press release regarding FMT's environmental policy "Only with transparency and accountability will we succeed in bettering our marine environment." The organization has made a commitment to implementing pollution prevention plans at all of its terminals to prevent stormwater runoff from polluting local waterways. Federal Marine Terminals has operated stevedoring facilities at ports in the United States and Canada for over four decades.

Jellyfish. Fine Sediment Filtration, Inspired by Nature.

For more information on the Jellyfish fine sediment filter system, visit Imbrium online at:

www.imbriumsystems.com

imbrium

www.imbriumsystems.com

USA: (888) 279 8826
CANADA: (800) 565 4801
INTERNATIONAL: +1 (416) 960 9900