

PetroLimator[®]

Frequently Asked Questions

What distinguishes the PetroLimator from other OWS systems on the market?

The PetroLimator is different from other types of OWS systems in many ways. It was designed to be the most efficient and cost effective system on the market. The system uses an advanced coalescer for Stage 1 separation. Stage 2 is a biological removal process specifically designed for hydrocarbons. The biological process is self-regenerative which allows it to be extremely cost effective and efficient.

How does the operating cost compare to other OWS systems?

The operating cost of the PetroLimator system is much less than other OWS systems. EnSolve has benchmarked the PetroLimator against many different OWS technologies and developed a chart to illustrate the differences. On average, the annual operating costs are 3 to 10 times less with the PetroLimator. EnSolve is also willing to stand behind this data by offering an Operating Cost Guarantee.

Will the crew need to handle the bacteria?

NO. By design, only limited entry into the system is required. The non-pathogenic, natural microorganisms are safe to handle, though the bacteria should not be ingested.

Are the bacteria, chemicals, nutrients or by-products of the process harmful or considered hazardous material?

NO. The bacteria, chemicals and nutrients provided are not hazardous and are safe to handle. The by-products of the system are primarily carbon dioxide (CO₂) and water. The quantity of CO₂ released is negligible.

Does the unit require major cleaning or changing of beads?

NO. There is no requirement to enter the system on a routine basis. The PetroLimator does not generate large amounts of sludge and can be operated under normal conditions with minimal cleaning.

What happens to the bacteria if it is pumped overboard in the effluent or is spilled onboard?

The bacteria used in the system were isolated from natural sources and pose no hazard to humans or marine environments. These bacteria need four factors to survive: oil, water, nutrients and oxygen. Those four factors are not likely to exist in areas other than the bilge. Bacteria that enter the bilge may actually provide a small benefit to the cleaning process.

How are the bacteria maintained in the PetroLimator?

The bacteria used in the system are provided air, water, nutrients and food (i.e., oil) during normal operation of the system. Freeze-dried bacteria are provided in packaged form as replenishments, and can be stored for years on the shelf.

Will the PetroLimator handle emulsified oil?

YES. Unlike other systems, the PetroLimator was specifically designed to treat oils emulsified by cleaners, detergents or the ship's motion. Emulsified oil is easier for the PetroLimator bacteria to consume because it is in "bite size pieces". EnSolve has successfully tested the PetroLimator with a number of maritime degreasers and detergents.

Will the system function if pure oil or heavy oil is pumped into the system?

YES. That is why the system is designed in stages. As part of the US Coast Guard certification process, pure Bunker C oil is pumped into Stage 1. Any free-phase oil which accumulates in Stage 1 is ultimately discharged to a waste oil collection tank where it can be recycled or burned depending upon the ship's protocol. This volume is typically small (< 5%) compared to the total volume of bilge water processed.