

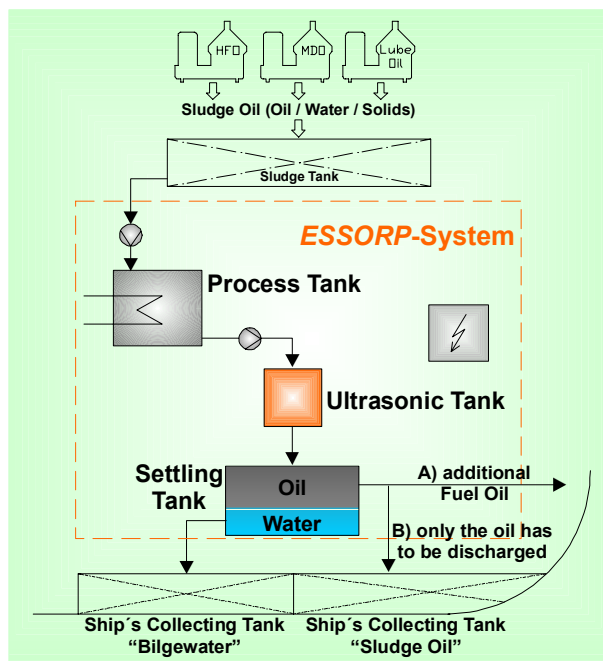
Environmental Systems Product - Info No. 6

Treatment of Sludge Oil / Oily Sludge / Waste Oil on board of ships

The Environmental Systems GmbH is delivering for the maritime industry an environmental friendly and low maintenance system for the treatment of:

- Sludge Oil
- Oily Sludge
- Waste Oil

This technology is based on an especially designed ultrasonic – technology, to split even extremely stabilised Oil/Water-Emulsions.



For this purpose no separators and chemicals are needed!!!

The Sludge Oil / Oily Sludge / Waste Oil, which the ships have to discharge until now at harbour, still contains approx. 45% water. This water has to be paid up to now together with the discharge of the oil. By use of our technology this water will be separated directly on board from the oil and can be supplied to the ships Oily Water Separator / Bilge Separator.

If the Sludge Oil is coming only from the HFO-Separators the separated oil can be transferred back to the ship's fuel oil system.

By means of the ESSORP-Technologie treated Sludge Oil coming from the Separators of a Container Vessel



after 1 minute



after 3 minutes



after 5 minutes



after 10 minutes

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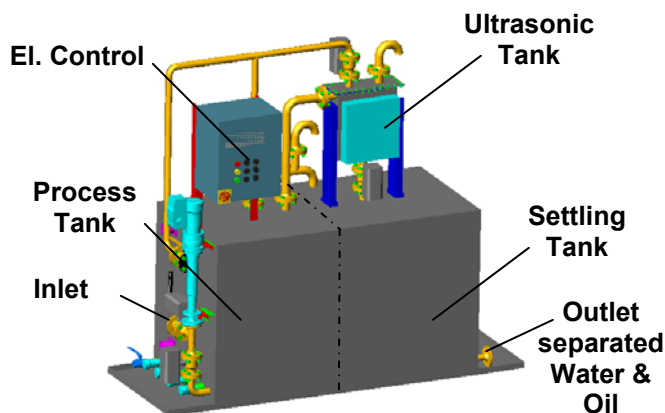
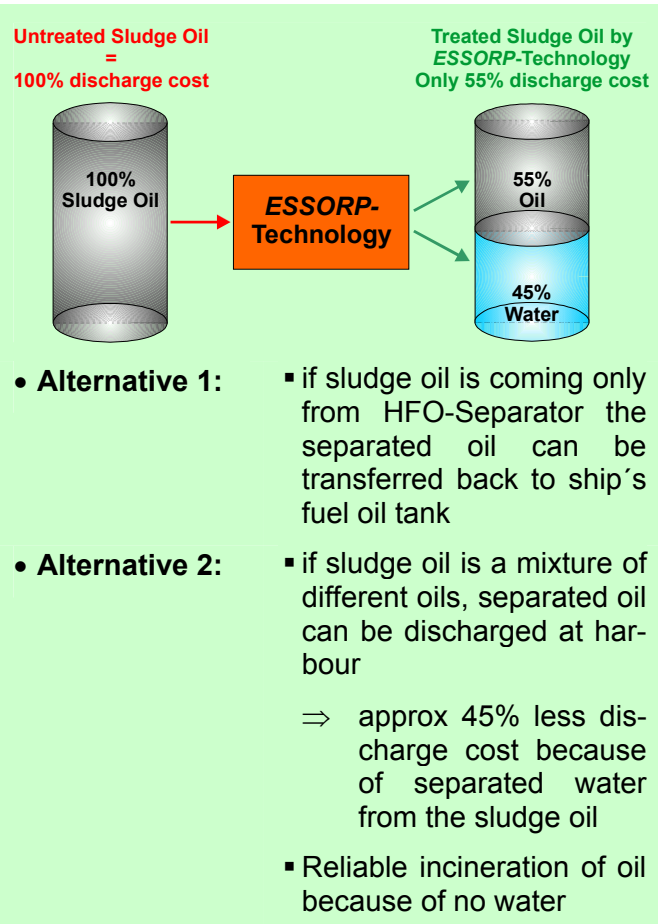
Treatment of Sludge Oil / Oily Sludge / Waste Oil

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Alternative 1: Reduction of discharge cost

Alternative 2: additional fuel oil

- Sludge Oil consists of approx. 45% water
- Why pay money for water?
- Elimination of the water from the Sludge Oil!!!
- Reduction of the quantity of the Sludge Oil approx. 45%
- Consequently less discharge cost
- If Sludge Oil is coming only from HFO-Separators, the separated oil can be transferred back to the ship's fuel oil tank (recycling of oil)
- Safe & reliable separation of the Sludge Oil into water & oil
- During incineration of Sludge Oil:
=> no water in the oil
- No need of chemicals
- No separators / purifiers
- For newbuildings & refits
- small & compact design, tailor-made



Example:

ESSORP for 1 cbm Sludge Oil per day

Width	2.700 mm
Height	2.400 mm
Depth	1.000 mm
El. Consumption	11 kW for heating
	4 kW other
Process Tank	1 cbm
Settling Tank	1 cbm
Operation time	10 hours/day



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