

# MAERSK LINE, LIMITED



To: Mr. John Paparone

06 March 2007

Fm: Jeff Phelps, Vessel Manager, Maersk Line Limited

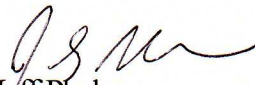
Subj: TREATMENT OF CONTAMINATED BALLAST TANK ON M/V "SEALAND ATLANTIC"

Mr. Paparone:

1. On 22 July 06, M/V SL Atlantic suffered a crack in the steel deck between a No. 6 heavy fuel oil tank and a 600 metric ton capacity double bottom ballast water tank, resulting in large-scale contamination of the ballast water.
2. The crack was repaired, the contaminated water was offloaded by a waste disposal firm and the ballast tank mechanically cleaned as much as possible. However, even with laborious cleaning we were not comfortable that all residual oil had been removed
3. During repair and recovery operations, we investigated various marine tank cleaning products. We found several claimed effectiveness; however, most resulted in a tank full of cleaning slops, and we wanted to avoid the cost of disposing these slops.
4. A colleague at the office remembered using environmentally-friendly bioremediation products on a similar ballast tank contamination involving the SeaLand Motivator. After contacting Mr. Paparone, we arranged for a sufficient quantity of "Naval Kleen II" to be delivered to SL Atlantic.
5. In August 2006 the ballast tank was refilled with seawater, the Naval Kleen added and the tank allowed to "cook" through several trans-Atlantic voyages. As the lab test results below show, the Naval Kleen was very effective in removing residual hydrocarbon contamination from the ballast tank water:

Date of Sample	Date of Test	Results in mg per Liter (mg/L)
18 Aug06	22 Aug 06	13.0 and 8.79 (twos samples)
15 Sept 06	20 Sept 06	3.7 and 3.72 (two samples)
19Oct06	23 Oct 06	2.4 mg/L (single sample)

6. The internal tank members have not yet been inspected, but from the rapidly declining hydrocarbon content in the ballast water, it is expected that they will be found free of oil.
7. In our experience, Naval Kleen II has proven to be a highly effective product, and if sufficient time is available for the organisms to metabolize the oil, the preferred product for mitigating oil contamination of ballast tanks

  
Jeff Phelps  
Vessel Manager  
Maersk Line Limited