

REF: EBM/cp:261

14 February 1992

De-Bug Manufacturing Ltd PO
Box 38-100
112 Nelson Street
WELLINGTON

Attention: Mr L W Forrest - Director

Dear Sir

**RE: "UNION ROTORUA" - LIGHT MARINE DIESEL BUNKER FUEL
CONTAMINATION**

The above vessel was supplied with over 1000 Tonnes of light marine diesel bunker oil, which was subsequently found to be infected with 'Hormoconis Resinae' (Diesel Bug).

The bacteria caused severe problems with blocked fuel filters. Filter life was reduced from 6 to 8 weeks to 17 hours or less.

Treatment of the fuel with the proper biocide kills the bacteria but does not eliminate the dead biomass, which still causes problems with filter blockage. Further, the virtual impossibility of eliminating all water in the bunker fuel tanks, means that re-infection may occur.

On fitting the De-Bug L4000 magnetic devices, it was immediately noticeable that fuel filter life was extended and the frequent filter changes were no longer required. Two L4000 devices were fitted in parallel in the fuel tank outlet pipework 'before the fuel forwarding pumps. These two devices cope with up to 78 tonnes of fuel per 24 hours. The third L4000 is fitted in the fuel supply line to the auxiliary diesels.

Cleaning of the infected bunker tanks may be required, but the De-Bug L4000 devices allow this to be scheduled for a convenient time, allowing the vessel to continue a normal trading pattern.

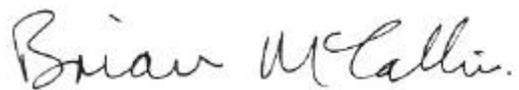


The devices will remain fitted as part of the ship equipment.

For information, the main propulsion machinery is a single G.E. 5002 gas turbine driving a 20MW alternator at 6.6kv, with shafts being turned by A.C. electric motors.

Auxiliary electrical power is from two 16-cylinder D399 Caterpillar generating sets.

Yours faithfully

A handwritten signature in black ink that reads "Brian McCallin". The signature is written in a cursive, slightly slanted style.

Brian McCallin
Superintendent - Technical

