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RCI Purifier Technologies Filter performance in Petroleum Distillates

We – Inpechem Inspectors B.V. – has received the request from the Company BO&AC to
make a research on the working of a filter on petroleum distillates.

We have tested various petroleum distillates, ranging from Marine Gas oil - MGO - to Marine Diesel Oil MDO - as standard used for bunker fuel fuels to the shipping industry, bearing in
mind its standard specification of ISO 8217-2005.

Marine Diesel Oil was contaminated with various substances:

1. **Rust - Iron Oxide**, as formed on mild steel shore tanks and / or other tanks and pipelines.

   The filter is able to reduce the iron oxide content to 70 % of the original iron oxide content.

2. **Particulate Matter**, particles were filtered over a 5 micron filter and the contents is reduced to 50 % of "Total Contamination"

3. **Catalyst Fines** as Aluminium Oxides and Silicon Oxides, derived from Catalytic refining, are a problem to abrasive wear in the engine.
   These fines are nearly not filtered, due its very small size.
   A quantity of 65 % cat fines has a size of 5 micron and below.

4. **Free water** is most significant reduced up to 98 % in a single filtration.

5. **Sand** (soil) is significant reduced up to 98 % in a single filtration.
   Laboratory test shows nearly all sand was filtered, basis 5 micron laboratory filter.

CONCLUSION:

Based on tests as performed at Inpechem Inspectors B.V. – March 2007 – The RCI Purifier filter removes easily free water and major parts of rust and sand, in general all solid particles above 5 micron size.

Sincerely Yours,

Ing. P.J. M. Meeusen

For and on behalf of Inpechem Inspectors B.V.