

# Changes to Gas Oil



To support EU air quality objectives, from 1st January 2011 European Directive 2009/30/EC requires changes in the specification of gas oil used for non-road mobile equipment such as agricultural machinery, forestry equipment, construction equipment, portable generators, etc. The directive calls for a reduction in sulphur content to  $\leq 10\text{mg/kg}$  and the inclusion of up to 7% Fatty Acid Methyl Esters (FAME) in fuel.

Kerosene to BS 2869, which is used for the majority of domestic boilers and cookers will not be affected.

## Will the change affect gas oil used for heating and cooking purposes?

Changes in fuel specification are only applicable to gas oil marketed for use in non-road mobile equipment and not gas oil marketed for heating equipment. However, it is possible that distributors will choose to stock and supply only low sulphur gas oil with the inclusion of FAME for use in both heating and non-road equipment.

Additionally, users who store gas oil for use in both heating and non-road equipment may choose to switch to low sulphur gas oil for both uses, thus preventing the need for the installation of additional oil storage and supply facilities.

## What can be done to prepare oil storage installations for the change in fuel?

FAME is hygroscopic. Therefore, it absorbs water and can promote bacterial growth. It also acts as a cleaning agent and will pick up any debris and contaminants contained within an oil storage tank and carry it downstream causing filter blockages.

Oil tank husbandry is essential in maintaining equipment reliability. Prior to storing FAME it is recommended that:

- Tanks should be checked for material compatibility, general condition and all water should be removed;
- A strict maintenance schedule should be put in place to ensure that the tank remains free of water and that bacterial growth does not occur.

Where bacterial growth is identified, specialist help may be required to assist in tackling the problem in emptying the tank, cleaning it and the use of biocide additives and filtering;

- The ordering of fuel should be scheduled to enable the contents of the tank to be turned over every 6 months.





## Do I need to change components?

All components carrying fuel will need to be tolerant to the FAME content of the fuel. Equipment manufacturers will be able to give advice on their products material compatibility with FAME, which is usually expressed as a B10, B30, etc. and indicates the maximum permissible percentage of biodiesel blended with mineral fuel. It is recommended that:

- All oil carrying components such as filters, fire valves, isolation valves, de-aerators, flexible oil lines, fuel pumps, etc. are checked for material compatibility. Seals may need to be substituted for biodiesel compatible ones or the entire component may need to be replaced;
- Joints in oil supply systems should be checked frequently following the first delivery of fuel containing FAME and any leaks should be repaired swiftly.

## Finding an OFTEC Registered Technician

The OFTEC website enables you to locate your nearest Registered Technicians. OFTEC Registered Technicians are appropriately qualified and insured to work in your home. They can also advise on energy efficiency.

You can also find a list of local Registered Technicians under the OFTEC logo in the 'Heating Engineers' section of your local pages.

**For further information on oil heating and cooking, please see [www.oftec.org](http://www.oftec.org)**



For more information on this subject or for further information sheets:

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