

## **Off-Road equipment and use of gas oil**

### ***Changes to Gas Oil Used in Off-Road Equipment***

If you use gas oil (often known as “red diesel”) then there are changes from January 2011 which you need to know about:

EU Directive 2009/30/EC requires that, from 1<sup>st</sup> January 2011, all gas oil marketed for use in non-road mobile machinery (i.e. mobile off road equipment) must contain no more than 10 milligrams of sulphur per kilogram of fuel (virtually ‘sulphur free’).

This fuel is needed by cleaner engines fitted in new off-road equipment which will be made to meet stringent new EU emission standards.

These standards will improve air quality and reduce adverse health and environmental effects.

Sulphur free gas oil is also likely to contain up to 7% biodiesel content.

The majority of existing equipment should not have any problems with the new fuel but a few precautions are recommended.

### **Who will be affected by these changes?**

Owners and users of off-road equipment. This includes tractors and other agricultural equipment, forestry equipment, construction equipment, forklifts, portable generators, inland waterway vessels, recreational craft and railway vehicles. However gas oil for stationary and heating applications may also be affected. In the case of gas oil for use in railway vehicles the introduction of sulphur free gas oil will be one year later (1<sup>st</sup> January 2012).

### **The UK Gas Oil Supply**

The oil industry has indicated that they expect to meet the requirement for gas oil to be sulphur free by January 2011 largely by supplying road diesel with a red marker dye added for use in mobile off road equipment. Road diesel is already sulphur free.

Because road diesel contains some biodiesel (up to 7%), much gas oil for off-road equipment is also likely to contain biodiesel by 1<sup>st</sup> January 2011. Biodiesel blends of up to 7% are compatible with existing off-road equipment engines provided good housekeeping arrangements have been adhered to in the storage of the fuel.

## **What do I do about Off-Road Equipment?**

If you own off-road equipment it is recommended that you:

- Examine fuel systems following the switch to the new fuel and ensure that any seals or pipes found to be leaking are replaced.
- If you are having older machinery serviced, replace fuel seals and pipes as a precaution.
- Replace fuel filters after the first 2 to 3 tankfuls of the new fuel.

## **What should I do about Fuel Storage?**

Because of the changes in fuel quality, you will need to exercise increased care in the storage of sulphur free gas oil for off road equipment where this contains biodiesel.

- Remove all water from the tanks and conduct monthly checks so that they remain free of water.
- Tanks that don't already have drain points for removing water are likely to need modification.
- Examine sight gauges on older fuel storage tanks for signs of leakage and replace any leaking seals.
- If you are having tanks serviced before you receive the new fuel it would be advisable to replace fuel seals as a, one-off, precautionary exercise.
- Replace fuel filters after 2 to 3 deliveries/turnover of the new fuel.
- Ensure the content of tanks is turned over every 6 months or in any event no less often than every 12 months to help prevent blockage of filters.

## **What happens if I have Stationary Equipment?**

Gas oil for heating or for stationary equipment is not required to be sulphur free. However, some fuel suppliers may supply you with sulphur free gas oil for these applications as well. In this case particular attention to the above precautions will be required. Heating gas oil users may wish to refer to their fuel supplier or service company for guidance on fuel filtration.

## **How does this apply to Marine Fuel?**

Gas oil sold for inland waterway vessels and recreational craft when used on inland waterways is required to be sulphur free by 1<sup>st</sup> January 2011.

Gas oil for sea-going marine use is not required to be sulphur free. It is not anticipated that suppliers of marine fuel will switch to sulphur free, but you may wish to confirm this with your supplier nearer the time.

The same fuel storage and fuel system compatibility issues would apply to marine applications as for off road equipment. However, these may be exacerbated by the increased risk of water contamination and safety concerns

**Where do I find more detailed information?**

Let your fuel supplier know what purpose you need the fuel for. They should supply you a fuel that is fit for purpose and be able to advise you of the sulphur and biofuel content of the fuel.

Further advice is available on the Department for Transport website at [www.dft.gov.uk/pgr/roads/environment/fuelqualitydirectivegasoilrequirements](http://www.dft.gov.uk/pgr/roads/environment/fuelqualitydirectivegasoilrequirements)