

### Service Portfolio

- Asset management including; generator pre-planned maintenance services, generator hire, load bank testing & 24 hour emergency call out
- Design & build of bespoke power generation solutions for oil & gas, industrial and marine applications
- Design & build of explosion protection systems
- Diesel engine installation, overhaul, maintenance and repair services
- Diesel fuel sampling, testing & polishing service
- Engine control solutions, including electronic & hydraulic governors overhaul and repair
- Offshore power generation rental
- Supply, installation and maintenance of uninterruptible power systems (UPS)
- Supply, installation and maintenance of low emission microturbines for prime power and or CHP applications



Turner EPS provide a comprehensive range of planned and reactive maintenance services for standby and emergency power generation equipment. Our tailor made maintenance solutions ensure that your investment is kept in prime condition and ready to power up whenever it's needed. These solutions include; scheduled maintenance, 24 hour emergency call out, generator hire, load bank testing and now fuel sampling, testing, contamination removal & fuel polishing services.

Your standby and or emergency generator relies on having pure, clean diesel fuel for efficient and reliable running. The ultra fine tolerances and high fuel injection pressures of today's diesel fuel systems mean they are extremely sensitive to any fuel quality problems or contamination. Fuel borne contaminants can come in a number of forms and from a variety of sources, but all will cause your engine, generator and pumps to fail.

***'Turner EPS's Asset Management division provides a complete range of products and services to help you detect, prevent and eradicate harmful diesel fuel contamination'.***

***Do you know what's in your fuel tank? Here are just some of the problems you could encounter....***

Contamination Type	Cause	Effect
Water	Poor fuel handling and transfer processes.	<b>Engine and fuel system damage.</b>
	Leaking fuel tanks.	<b>Corrosion.</b>
	Condensation with fuel tanks.	<b>Fuel oxidation.</b>
	Poor quality fuel delivery.	<b>Growth of diesel bug.</b>
Diesel Bug	Grows as a result of water contamination.	<b>Blocked engine filters &amp; fuel components.</b> <b>Corrosion of fuel tanks.</b>
Asphaltenes	Naturally occurring in fuel. Increases with heat & mechanical stress to fuel.	<b>Blocked engine filters.</b>
Gums, Resins & Acids	Fuel oxidation, accelerated by water content.	<b>Filter blockage &amp; corrosion.</b>
Other particles -rust, grit, soot etc	Poor fuel quality, poor fuel handling, corroding fuel tanks.	<b>Filter blockage and fuel systems wear.</b>

ENGINE  
POWERED SERVICES

ENGINE  
POWERED SOLUTIONS

EXPLOSION  
PROTECTION SYSTEMS

ENGINE  
CONTROL SOLUTIONS



## YOUR DIESEL IS UNDER ATTACK – ACT NOW

The variable nature of diesel fuel contamination and the fact that every application is unique means that there is no 'silver bullet' that will ensure clean, dry, trouble free fuel. It is generally recognised that the implementation of a robust Fuel Management Programme, consistently applied over the long term, is the best way to maintain your fuel quality. In fact, it's what most engine manufacturers and fuel supply companies recommend.



### Diesel Fuel Sampling and Testing

Turner EPS service engineers can undertake routine sampling and testing of stored fuel during the course of a normal service visit. Our service vehicles are kitted out with the latest fuel testing kits that permit us to provide you with 'tank side' sampling and testing to identify potential fuel issues quickly and accurately on site.

Other tank side sampling and testing equipment is available from Turner EPS includes a variety of fuel tank sampling devices, water detection products and portable particle counting meters.

### Diesel Bug

A fuel tank containing water provides the perfect breeding ground for diesel bug. Bacteria, moulds and yeasts will happily thrive at the interface between fuel and water – living in the fuel and drawing nutrients from the fuel. As these microbes grow within the fuel tank they can cause a number of problems, the lumps of biomass that they form will easily clog an engine filter, they will degrade fuel quality and the acids they produce will cause corrosion to the fuel tank and beyond.

### Water in Fuel

Water in fuel tanks can occur with any type of diesel. It can be introduced at any point of handling and transfer due to bad procedures and, as ambient temperatures raise and fall, it condenses inside fuel tanks from moisture laden air. With gradual introduction of bio-diesel into the fuel supply chain the incidence of water in fuel will increase. Bio-diesel contains more water than Petro-diesel (it is introduced in the production process), it is also hygroscopic – it absorbs water from the atmosphere. Petro-diesel can only absorb around 50 parts per million (ppm) of water whilst bio-diesel can absorb as much as 1500ppm – pretty much all global fuel standards recommend a maximum water content of 200ppm. Wherever you are storing diesel, especially over long periods of time, there is a strong likelihood you will get water contamination

### Fuel Polishing

In addition to fuel sampling and testing services, Turner EPS service engineers can also undertake on-site fuel polishing of diesel fuel held in tanks, bowsers and drums. Our mobile fuel polishing units incorporate the latest technology fuel filters or coalescers to remove damaging particulate contamination and water from the diesel.

The diesel fuel is pumped from the storage tank and 'polished' removing virtually 100% of water and all particles down to 2 micron before returning back to the fuel tank, eliminating the expense of totally removing or replacing the fuel.

Turner EPS can provide a Fuel Polishing system for any type and size of fuel storage tank. We offer a variety of filtration levels to suit your specific application and all units are designed to operate on a 'stand alone' basis via 24/7 day digital timers.

A range of different alarms and automatic functions are available as standard or options, the range includes; plate mounted, skid mounted or units enclosed in a secure, vented cabinet. High end systems are available with inbuilt ISO particle counters which provide live fuel quality measurement.

We can also supply all units with an automatic dosing unit for addition of biocides or stability additives.

