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FUEL HANDLING AND STORAGE



YOUR SAFETY SENSE LEAFLET FOR: **FUEL HANDLING AND STORAGE**

Ensuring fuel is appropriate with respect to grade, quantity and quality is essential for safe aircraft operations.

This leaflet is intended to give practical guidance on the dispensing, handling and storage of fuel for use in GA aircraft. While this guidance may be of use to professional fuel installation managers, the main audience is GA pilots who may dispense or store fuel themselves.

Some aspects of storage and fuelling installations are addressed, however the detail of specification and construction are beyond the scope of this publication.

FUEL HANDLING AND STORAGE

Responsibilities

All those involved in the dispensing, handling and storage of aviation fuel at aerodromes have responsibilities under Article 220 of the [Air Navigation Order \(ANO\) 2016](#) – ‘Aviation Fuel at Aerodromes’ to ensure that the storage of fuel is appropriate and will not render it unfit for use in aircraft.

These legal responsibilities apply equally to fuel being stored or dispensed at licensed or unlicensed aerodromes. The term ‘aerodrome’ includes any land or water set aside for the landing and departure of aircraft. This includes private airstrips, helicopter pads or any other site where aircraft operations take place. A pilot or other person

who stores fuel, whether aviation gasoline (AVGAS), JET A-1 or motor gasoline (MOGAS), or even just fills an aircraft from a container, has the same legal and safety responsibilities as a professional fuel installation manager.

Hazards

There are three basic hazards associated with aviation fuel:



Fire and explosion



Incorrect type or quality



Environmental contamination

Everyone involved in fuel handling should be constantly aware of these hazards and make every effort to minimise the associated risks.

Fuel contamination (loss of fuel quality) is one of the main causal factors for engine failures and can lead to dual engine failures in twin engine aircraft.

FIRE AND EXPLOSION PREVENTION



Petroleum products are highly flammable. The risk can be reduced by removing or mitigating sources of ignition and using appropriate containers for transport and storage.



Sources of ignition such as a lit cigarette should be prohibited within any fuelling zone and at least 16 metres (50 ft) from any open fuel container or fuelling operation, especially downwind.



Other possible sources of ignition are sparks originating from exposed battery connections, operating electrical switches, metal studs on concrete, or electronic devices. Refuelling should not take place when there is a risk of lightning or other electrical activity.



You should have a suitable fire extinguisher available, preferably foam but not a domestic water type. Water is not effective against petroleum flames and will only make the fire worse. Ensure you know how to operate the extinguisher and any other safety devices such as rapid shut off valves on dispensing equipment.



Know how to contact the fire service if the worst should happen. No one should be in the aircraft during refuelling.