

Federal Aviation Administration
Civil Aviation Security
Dangerous Goods Advisory Bulletin

Information of Concern to Air Carriers

Subject: Fuel Control Units
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INFORMATION: Federal Aviation Administration (FAA) Dangerous Goods and Cargo Security inspectors are encountering fuel control units containing residual amounts of aviation fuel or flammable cleaning solvents which are being transported by air as undeclared or improperly declared shipments. These units are common aircraft parts considered to be air carrier company material (COMAT) and often are being returned to the manufacturer for ongoing maintenance. The units typically are packaged inside a standard fiberboard box, and many of these packages are leaking. If residual amounts of flammable aviation fuel or cleaning solvents remain in the unit, domestic and international hazardous materials regulations apply and the unit must be prepared for transport as follows:

49 CFR

A fuel control unit containing residual aviation fuel is properly described under 49 CFR as follows:

Fuel, aviation, turbine engine, 3 UN 1863, PG (II or III)

or

Residue, last contained Fuel, aviation, turbine engine 3, UN 1863, PG (II or III)

The unit may contain a flammable cleaning solvent instead of the fuel and thus more accurately described using a technical name listed in the 49 CFR 172.101 Hazardous Materials Table or generic description such as "flammable liquid, n.o.s." with the addition of the technical name. (See 49 CFR 172.203(k))

The outer packaging must be marked with the proper shipping name and identification number and display a Class 3 label.

The unit qualifies for limited quantity exceptions if the net capacity of the unit is not more than 1 L (for PG II) or 5 L (for PG III). Net capacity means the unit is not designed to contain more than 1 L or 5 L, respectively. If the unit meets the net capacity limitation, it can be packaged in a non-specification (not UN tested and certified) packaging. However, the package must meet general packaging standards, such as applicable requirements in 49 CFR 173.24 and 173.24a for strength, impact resistance, cushioning, absorbency, and compatibility with the lading. In addition, the fuel control unit must be capable of withstanding pressure requirements in 49 CFR 173.27(c). If the fuel control

unit cannot withstand this pressure without leaking, then it needs to be packed in a metal or plastic inner container that can meet the pressure requirements.

ICAO/IATA

A more specific shipping description with corresponding packaging provisions for this type of apparatus has been adopted by ICAO/IATA. At present, this entry is under consideration for adoption by the UN Committee of Experts and the US is planning to propose its inclusion into the Hazardous Materials Regulations.

A fuel control unit containing residual aviation fuel or flammable cleaning solvent, prepared for shipment under the ICAO Technical Instructions, would be described as follows:

Dangerous goods in apparatus, 8001

or

Dangerous goods in machinery, 8001

The shipper's declaration must indicate that the shipment is being made under ICAO provisions.

Marking, labeling and packaging must conform to Packing Instruction 916. The outer package must be marked with the proper shipping name and labeled according to each hazard in the apparatus (e.g., Class 3). No UN performance tests are required. General packaging requirements such as strength, compatibility with lading, cushioning and absorbency must be met. Total net quantity of fuel in one unit must not exceed 0.5 L.

Packaging

It has been reported that 60-90% of current packages are leaking and, therefore, not in compliance with either 49 CFR or ICAO/IATA general packaging standards. In order for the unit to be properly packaged, all necessary steps must be taken to ensure the integrity of the package. This may include placing the unit in an inner receptacle, such as plastic or metal container compatible with the lading, surrounding the unit with adequate absorbent material to contain any liquid that may leak, and cushioning the inner receptacle within the outer packaging.

Non-regulated fuel control units

Fuel control units which have been re-filled with a non-regulated material prior to being shipped to the maintenance facility are not subject to either domestic or international hazardous materials regulations.

Charles N. Lovinski
Program Manager
Dangerous Goods and Cargo Security