

**PART 150 – FUELING AND DEFUELING REGULATIONS FOR AIRCRAFT AND  
GROUND SERVICE EQUIPMENT**

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**PART 150 –FUELING AND DEFUELING REGULATIONS FOR AIRCRAFT AND  
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**150.01    APPLICABLE LAW**

All fueling and defueling of aircraft and all operation and management of Aircraft Fuel Operations Facilities shall be conducted in accordance with all DEN Rules and Regulations, the City and County of Denver approved fire code (the International Fire Code and Denver Amendments), applicable NFPA regulations (including NFPA 385 and NFPA 407), applicable FAA Regulations, and all other applicable state, federal, and local laws and regulations, including Spill Prevention Control and Countermeasures (“SPCC”) regulations (40 CFR Part 112) promulgated by the United States Environmental Protection Agency (EPA).

Before access to the fuel system is allowed, all users of fuel systems at DEN shall execute the appropriate contractual agreements with DEN and the Contracting Airlines to define their status.

**150.02    AIRCRAFT FUELING LIMITATIONS**

Only airlines, the fuel system operator, fueling agents, and fixed based operators (“FBOs”) are authorized to perform into-plane fueling services. All fueling and defueling of aircraft shall be conducted from fuel systems and refueler units or fuel trucks approved by the DEN Chief Executive Officer City and County of Denver Department of Aviation (“CEO”), or designee. Refueler units and fuel trucks shall use a ticket meter approved by DEN or an approved fuel system operator. Fueling and refueling operators are responsible for compliance with all codes, regulations and laws associated with the process.

**150.03    NON-MOTORIZED HYDRANT VEHICLES (CARTS)**

The use of non-motorized hydrant vehicles (carts) is allowed if they are positioned in designated and marked ramp locations. Each designated location will be determined based on the hydrant pit location, aircraft gate layout and ground service requirements.

Hydrant carts shall not be left unattended when connected to the hydrant valve. They may not remain connected to the hydrant valve during fueling banks of aircraft.

**150.04    BONDING OF AIRCRAFT AND FUELING VEHICLES**

All aircraft shall be fueled and defueled in accordance with the bonding procedures outlined in the applicable fire codes including NFPA 407. In general, all fueling equipment and aircraft shall be electrically bonded prior to and during fueling and defueling activities. All bonding connections shall be maintained until final completion of the fueling or defueling operation. Failure to bond correctly can easily lead to fire and explosion. It is incumbent on all fueling operators to be trained on proper procedures and to perform bonding operations correctly.

**150.05 PLACES WHERE FUELING AND DEFUELING IS PROHIBITED**

**150.05.1 Hangars and Enclosed Areas**

Aircraft shall be prohibited from fueling and defueling while located within any hangar or any other enclosed area.

**150.05.2 Safe Distance from Buildings**

During fueling and defueling operations, the vents and fill operations of aircraft fuel tanks shall be not less than fifty (50) feet from the airport terminal or any other building. This distance may be modified only with prior approval of the CEO.

**150.05.3 Green Lines**

Surface-painted green lines surrounding concourse areas indicate “No Fueling” zones, where the ramp slope and drainage will not accommodate spilled fuel.

**150.06 RESERVED**

**150.07 QUALIFIED OPERATORS**

The fueling and defueling contractors shall provide sufficient trained personnel to operate all equipment and maintain a safe operating process including the capability to automatically shut down or control the process when unsafe or spill conditions threaten personnel safety, the environment or the facility in general. The fueling and defueling contractors are responsible for operations of their personnel. The fueling contractor(s) shall be responsible for certifying the operators as qualified and trained in contractor and airport procedures. The fueling contractor(s) shall be responsible for certifying the operators as qualified and trained in contractor and airport procedures and that they have sufficient resources and backup to do their jobs competently.

Automatic shut-offs will be enabled and fully operational at all times.

**150.08 AIRCRAFT ENGINES SHUT OFF**

Aircraft shall be fueled or defueled according to aircraft manufacturer’s recommendations and in compliance with all applicable fire codes described above and must follow all requirements of NFPA 407, sections 4.2.12.3 through 4.2.12.3.3.

**150.09 NO SMOKING**

Smoking by any person on or within fifty (50) feet of a fuel truck or refueling operation is prohibited. Approved “NO SMOKING” signs, with letters on a contrasting background, shall be conspicuously posted throughout every hangar and at each fuel transfer point.

**150.10     ANTI-SPARK EXHAUST SYSTEMS AND REGEN PROCEDURES**

Refueled units and all fuel trucks must be equipped with anti-spark exhaust systems. The engine exhaust system shall be designed, located and installed so as to minimize the hazard of fire.

DPF regeneration-equipped fueling vehicles must follow all requirements of NFPA 407 and FAA Advisory guidance for vehicle equipment and regen procedures.

**150.11     RADIO TRANSMITTERS AND ELECTRICAL APPLIANCES**

During fueling or defueling of aircraft, no person shall operate any radio transmitter or receiver in such aircraft, switch electrical appliances on or off in such aircraft, or perform any act which may cause a spark within fifty (50) feet of the aircraft.

**150.12     TRANSFER OF FUEL BETWEEN VEHICLES**

The transfer of bulk aircraft or commercial fuel from one fuel truck to another is prohibited within the boundaries of the Airport.

**150.13     SPILL CONTROL AND RESPONSE**

The fueling and defueling contractor(s) are responsible for training their personnel in spill response and reporting procedures. Persons engaged in fueling or defueling shall exercise care to prevent overflow or spillage and will take proper measures to remove any liquid when spilled. The Airport Fire Department must be called to stand by during cleanup of fuel spills. Any person involved with any fuel spill shall remove such spill immediately in compliance with Part 180 of the Airport Rules and Regulations and must notify the DEN Communications Center (303-342-4200) immediately. Reference Airport Operations Standard Operating Guideline (SOG) for Spill and Releases.

**150.14     INSPECTION OF REFUELING VEHICLES**

All fuel trucks and equipment used in the transfer of engine-operating fuels shall be maintained in a safe operating condition and shall be inspected daily by authorized and qualified owner/operator personnel. Individual records of such inspections shall be maintained by each owner/operator and readily available on each unit. The record will indicate identity of units, dates, extent of the inspections, the name of the inspector, and the organization represented. Any refueled units and trucks containing flammable liquids found to be in unsafe operating condition shall be taken out of service immediately. Any unit taken out of service shall be prohibited from operating on the airport until it has been restored to a safe and serviceable condition.

Denver Fire Department (DFD) fueling inspectors assigned full time at the Airport and Airport Operations Division personnel shall monitor all fueling operations on the AOA. The physical facilities and fueling vehicles of all fuelers will be inspected at least once every 3 consecutive calendar months for compliance with standards. In addition, DFD, Denver Police Department and Airport Operations personnel may conduct spot inspections of fueling vehicles. Vehicles

found to be in an unsafe operating condition during these inspections will be taken out of service at the discretion of the inspection agency and an “Out of Service” sticker will be placed on the outside of the front windshield. After the vehicle is restored to a safe operating condition and has been satisfactorily re-inspected by DFD, the owner may put the vehicle back into operation.

Fuel trucks shall not conduct fueling operations with an “Out of Service” sticker on the vehicle. The first violation of this rule by an organization will result in a Violation Notice being issued. The second violation of this rule by an organization, even if a different vehicle is involved, will result in a citation written by the Denver Police Department. All third and subsequent violations of this rule by an organization, even if a different vehicle is involved, will result in the vehicle(s) being prohibited from operating on the airport and may result in further actions toward the operator.

#### **150.15     STORAGE OF FUEL, REFUELED UNITS AND FUEL TRUCKS**

Storage of AVGAS and Jet A Fuels is restricted to those facilities provided by the City and managed by the City’s authorized operator. Fuels may be stored in fuel tanker trucks provided the fuel was drawn from the Airport fuel system and proper containment is present for overnight storage.

Tank vehicles shall be parked in remote areas designated by the CEO in such manner as to maintain clearance between trucks per applicable fire codes and DEN Operations instructions, unless said trucks are preparing to service or are actually servicing an aircraft.

Hydrant vehicles shall be parked only in designated areas per applicable fire codes and DEN Operations instructions in a manner to permit rapid removal and accessibility of fire apparatus. Parking elsewhere is permitted only during actual fuel transfer handling operations or for short periods with a driver in the vehicle

Gasoline may be stored in fuel tanker trucks provided the fuel was drawn from the Airport’s fuel system.

Fuel trucks, hydrants trucks, and any oil storage container 55-gallon capacity or greater are regulated under the SPCC regulations (40 CFR Part 112). SPCC plans must be prepared for mobile fueling and oil storage operations at DEN.

#### **150.16     AIRCRAFT AND RAMP OCCUPANCY DURING FUEL SERVICING**

Aircraft occupancy during fuel servicing must follow all requirements of NFPA 407, to include the following:

- If passengers remain on board an aircraft during fuel servicing, at least one qualified person trained in emergency evacuation procedures shall be in the aircraft at or near a door at which there is a passenger loading walkway, integral stairs that lead downward, or a passenger loading stair or stand.

- A clear area for emergency evacuation of the aircraft shall be maintained at not less than one additional exit.

- Where fueling operations take place with passengers on board away from the terminal building, and stairways are not provided, such as during inclement weather (diversions), all slides shall be armed and the aircraft rescue and firefighting (ARFF) services shall be notified to respond in standby position in the vicinity of the fueling activity with at least one vehicle.
- Aircraft operators shall establish specific procedures covering emergency evacuation under such conditions for each type of aircraft they operate.
- All “no smoking” signs shall be displayed in the cabin(s), and the no smoking rule shall be enforced.
- For each aircraft type, aircraft operators shall determine the areas through which it could be hazardous for boarding or deplaning passengers to pass while the aircraft is being fueled.
- Controls shall be established so that passengers avoid such areas.

**150.17     RESERVED**

**150.18     AIRCRAFT MAINTENANCE**

Fueling and defueling as a matter of aircraft maintenance must follow all conditions of this Rule and Regulation. In addition, aircraft maintenance activities can only be conducted in areas approved by the CEO.

**150.19     MAINTENANCE OF AREA AROUND AIRCRAFT FUEL OPERATION FACILITIES**

Yards in the vicinity of aircraft fuel operations facilities shall be kept free of trash and other debris at all times. Maintenance and operation practices shall control leakage and prevent spillage of flammable or combustible liquid. Spills encountered during O&M operations shall be immediately reported and managed under the Airport Operations Standard Operating Guideline (SOG) for Spills and Releases.

**150.20     SAFETY DEVICES**

Bypassing any safety device on a refueling vehicle, or at an Aircraft Fuel Operation Facility or any component of the aircraft fueling system including any associated with the auxiliary equipment is prohibited.

**150.21     MECHANICAL OVERRIDES**

If the aircraft has a faulty gauge or valve, an airline authorized mechanic can override the overfill valve solely to ensure that an overflow does not occur, providing all reasonable steps are taken. “Reasonable” means checking dipsticks in wings, taking gauge readings under wing with cockpit gauge, and performing other available checks that do not require the aircraft to be taken apart on the apron.

**150.22     SUPPORT VEHICLE FUELING**

Tugs, loaders and other ground support vehicles will be fueled primarily at fuel terminals located at the east end of concourses A, B, and C and at the GSE south super island. When this is not feasible, fueling from a tanker vehicle may be permitted in accordance with Airport Operations guidelines relative to distance from the Airport concourses, jet ways, or other buildings.

### **150.23 FUELING SUPPORT VEHICLES ON QUEENSBURG STREET**

Unlicensed vehicles directly and solely involved in the support of fueling operations and the Airport fuel system are permitted to exit the Restricted Area and to drive on Queensburg Street to 111th Avenue for access to the fuel farm facility. Restricted Area driving and permitting regulations apply, and the vehicles are prohibited from leaving Airport property or deviating from the assigned route described above.

### **150.24 TRANSPORT OF HAZARDOUS MATERIALS ON THE AIRFIELD**

Airport tenants and tenant fueling agents shall not create tank vehicles that transport hazardous materials on the airfield.

“Tank vehicle” is defined as a vehicle other than a railroad tank car or boat, with a cargo tank mounted thereon or built as an integral part thereof used for the transportation of flammable or combustible liquids, LP gas, CNG or hazardous chemicals. Tank vehicles include self-propelled vehicles and full trailers and semitrailers, with or without motive power, carrying part of or the entire load.

**Explanation:** Vehicles designed for the transport of hazardous materials are purpose-built and are sold with a manufacturer’s certificate. This certificate indicates that it is built to the specifications of all relevant codes, with materials compatible to the fuel being carried. It further indicates that all testing (e.g. hydrostatic tests, weld inspections) have been completed. A vehicle that has been manufactured for its purpose also indicates that the procedure it’s being used for is being done successfully elsewhere.

DEN does not have a design review process to certify *homemade and/or modified* vehicles for all safety and code concerns, and the proliferation of vehicles built without applying for any permission necessitates this prohibition.

Airport tenants and tenant fueling agents shall not create processes for transferring fuel and/or hazardous materials from one container to another outside of specified practices allowed elsewhere in DEN Rules and Regulations.

“Fueling Process” is defined as any transfer of liquid or gaseous fuel between or into containers or vehicles.

**Explanation:** DEN was constructed so that fueling of ground service equipment takes place at fueling islands (located on the end of each concourse) remote from the vicinity of the public and aircraft. The fueling islands have drainage and containment ponds specifically designed to contain and mitigate spills, Emergency Fuel Shut offs designed to shut down all types of fuel being dispensed and call stations in case of emergency. Creating

a fueling procedure outside of this, especially a mobile fueling station, cannot control for sources of ignition in the area, misfuelling by unskilled operators in the vicinity of the public and aircraft, and fuel spills or releases due to equipment failure or accidents.

DEN GSE refueling is also accomplished by mobile tankers, but those are manufactured for their purpose, inspected quarterly for fueling safety, and have specific handling and operating requirements.