



VERO BEACH
REGIONAL AIRPORT

AVIATION FUEL HANDLING and FIRE SAFETY STANDARDS

INCLUDING PERSONNEL TRAINING REQUIREMENTS



REVISED MARCH 2021

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AIRPORT TRAINING REQUIREMENTS SUMMARY

**AIRPORT TENANT/EMPLOYEE
MANDATORY TRAINING REQUIREMENT SYNOPSIS***
REFERENCES FAR 139.321 & 139.327
UPDATED 10-18-19



TYPE OF TRAINING	AIRPORT DRIVER TRAINING	FUELING AGENT SUPERVISOR TRAINING	FUELING AGENT EMPLOYEE TRAINING
TRAINING REQUIREMENTS			
WHO IS REQUIRED TO ACCOMPLISH TRAINING?	ANYONE WHO DRIVES ANY TYPE OF VEHICLE ON MOVEMENT AREAS OF THE AIRPORT (THIS INCLUDES RUNWAYS, TAXIWAYS AND RUNUP AREAS)	A DESIGNATED FUELING SUPERVISOR FOR EACH FUELING AGENT (A FUELING AGENT IS A BUSINESS THAT SELLS FUEL TO THE PUBLIC)	ANYONE WHO STORES, DISPENSES OR OTHERWISE HANDLES AVIATION FUEL ON THE AIRPORT
WHEN MUST TRAINING BE DONE?	PRIOR TO UNESCORTED ACCESS TO MOVEMENT AREAS OF THE AIRPORT	PRIOR TO ACTING AS SUPERVISOR, OR BE ENROLLED IN A COURSE THAT WILL BE COMPLETED WITHIN 90 DAYS (NEW SUPERVISORS ONLY)	PRIOR TO ASSIGNED DUTIES
WHAT ARE RECURRENT REQUIREMENTS?	EVERY 12 CALENDAR MONTHS	EVERY 24 CALENDAR MONTHS	EVERY 24 CALENDAR MONTHS
TRAINING SOURCE	AIRPORT STAFF AND OJT BY QUALIFIED TENANT PERSONNEL	MUST BE A COURSE APPROVED BY FAA (LIST OF COURSES AVAILABLE AT WWW.FAA.GOV OR FROM AIRPORT)	CAN BE PROVIDED BY THE SUPERVISOR OR OTHER COMMERCIAL SOURCES (BASIC SUBJECTS FOR ON-THE-JOB TRAINING DETAILED IN FUELING STANDARDS HANDBOOK)
ARE THERE ANY OTHER REQUIREMENTS?	TENANT MUST PROVIDE ON-THE-JOB TRAINING IN ADDITION TO AIRPORT-PROVIDED TRAINING	<ol style="list-style-type: none"> IF NOT INCLUDED IN TRAINING, SUPERVISOR MUST COMPLETE LIVE FIRE EXTINGUISHER TRAINING WITHIN 60 DAYS BEFORE OR AFTER SUPERVISOR TRAINING COMPLETION. SUPERVISOR MUST RECEIVE CERTIFICATE OF TRAINING WITH SPECIFIC ITEMS INCLUDED* FUELING AGENT TO PROVIDE COPY OF CERTIFICATE TO AIRPORT 	<ol style="list-style-type: none"> LIVE FIRE EXTINGUISHER TRAINING EVERY 24 CALENDAR MONTHS, WITHIN 60 DAYS BEFORE OR AFTER TRAINING. FUELING AGENT TO PROVIDE COPY OF ALL TRAINING RECORDS TO AIRPORT FUELING AGENT TO PROVIDE LETTER ANNUALLY CERTIFYING TRAINING HAS BEEN ACCOMPLISHED*

*COMPLETE INFORMATION AVAILABLE IN AVIATION FUEL HANDLING/FIRE SAFETY STANDARDS.
AIRPORT ALSO OFFERS AVIATION FUEL HANDLING/FIRE SAFETY STANDARDS TRAINING AT TENANTS REQUEST (THIS IS NOT MANDATORY).

SAMPLE FUELING SUPERVISOR TRAINING CERTIFICATE

Showing required elements of an acceptable certificate



This is an example of a valid Supervisors' Certificate of Training. A certificate of training that does not include the required elements indicated is not valid, and the holder will not be considered in compliance with Airport and FAA requirements.

All FAA-Approved Supervisory training programs are familiar with these requirements, and will issue a certificate that complies. The certificate will also indicate whether Hands on Live Fire Extinguisher training was included. Refer to Section 3 for details.

SAMPLE FUELING AGENT TRAINING COMPLIANCE LETTER

To be furnished by each Fueling Agent to Airport every 12 calendar months.

COMPANY LETTERHEAD

Date

Mr. Todd Scher
Airport Director
Vero Beach Regional Airport
P. O. Box 1389
3400 Cherokee Drive
Vero Beach, FL 32961-1389

Dear Mr. Scher:

This letter is to certify that all supervisors and employees of _____, a fueling agent at the Vero Beach Regional Airport, have received training in fire safety in accordance with the requirements of Federal Aviation Regulations Part 139.321.

The following individuals have received the appropriate training:

Employee Name, Supervisor	Employee Name, Fuel Tech
Employee Name, Fuel Tech	Employee Name, Fuel Tech
Employee Name, Fuel Tech	Employee Name, Fuel Tech

Documentation of our Supervisor's Fuel Safety training, as well as the training records for other fueling employees, has been provided to your office.

Sincerely,

Name
Title
Company

2. INTRODUCTION TO STANDARDS

a. **APPLICABILITY**

The provisions of the Standards apply to those airport tenants that sell fuel to the public, referred to as Fueling Agents. Tenants that store and handle fuel for their private use only are not subject to the Standards, but are encouraged to comply to enhance Airport Safety.

A Fueling Agent that is not in compliance with these Standards is not authorized to sell fuel to the public on the Airport, and may be found in non-compliance with their lease agreement with the City of Vero Beach.

b. **FAR 139.321 BASIC REQUIREMENTS**

Vero Beach Regional Airport is licensed by the Federal Aviation Administration (FAA) as an Air Carrier Airport, under Federal Aviation Regulations Part 139. The Airport is required to be in compliance with FAR 139 at all times, and must require Airport Aviation Tenants to be in compliance when applicable. Section 321 of Part 139 prescribes policies and procedures for the safe handling of aviation fuel, which are contained in these Aviation Fuel Handling and Fire Safety Standards.

The Airport and Fueling Agents both have responsibilities under FAR 139.321.

c. **THE AIRPORT'S RESPONSIBILITIES**

In accordance with §139.321, the Airport must:

- Establish and maintain standards for protecting against fire and explosions in storing and dispensing fuel and lubricants on the airport, to include facilities, procedures and personnel training. The Airport has established Fuel Handling and Fire Safety Standards.
- Require Fueling Agents to comply with the established standards. *Verbiage in each airport tenant's lease agreement mandates compliance with directives issued by the Airport Director.*
- Perform reasonable surveillance on a regular basis to ensure compliance.
- Inspect the physical facilities of each airport tenant fueling agent at least once every 3 consecutive months for compliance with these Standards.
- Maintain a record of the inspections and corrective actions for at least 12 consecutive months.
- Document initial and recurrent fire safety training for both supervisors and all other fueling agent employees.
- Obtain written certification once a year from each airport tenant fueling agent that the training has been accomplished.

d. THE FUELING AGENT'S RESPONSIBILITIES

Here are the basic requirements for fueling agents:

- Each fueling agent must have at least one designated Fuel Safety Supervisor (hereafter "Supervisor") who has completed an FAA – Approved aviation fuel training course in fire safety. Section 3 below specifies complete Supervisor training requirements.
- Each fueling agent must ensure that all other employees who fuel aircraft, accept shipments or otherwise handle aviation fuel must receive at least initial on-the-job training in fire safety from the Supervisor. Section 4 specifies complete training requirements for other employees.
- Fueling Agents must document initial and recurrent fire safety training for Supervisors and other fueling employees, and provide copies of all required training documentation to the Airport Director's Office.
- **Fueling Agents must certify, in writing, to the Airport Director that all required training has been accomplished. Use the sample Fueling Agent Training Compliance Letter format on page iv, and submit every 12 calendar months.**

Now, let's take a look at the specific training requirements for both Supervisors and other employees who handle aviation fuel.

3. TRAINING REQUIREMENTS

a. SUPERVISOR TRAINING

The following requirements apply to the Supervisor's Training:

- The Supervisor must have completed a training course, or be enrolled in a course that will be completed within 90 days.
- The Supervisor's training course must be approved by FAA. *(For a current list of approved courses, contact the Airport Director's office or visit www.faa.gov).*
- Supervisor training must include hands-on training in the proper use of hand held fire extinguishers. ***If the supervisor's training did not include live fire-extinguisher training, the certificate of training must include a statement indicating "excluding hands-on fire extinguisher training".***
- A Supervisor whose training did not include hands-on fire extinguisher training ***must complete that training, using a local fire department or other qualified provider, within 60 days before or after the date on the training certificate***, and a certificate of completion of fire-extinguisher training must be attached to the Supervisory training certificate.
- Supervisors must receive recurrent training every 24 calendar months. Recurrent training providers must also be approved by FAA.
- Supervisor's training must be documented and provided to the Airport Director's office. *Training records must always indicate that the Supervisor's most recent approved training occurred within the preceding 24 calendar months*

b. SUPERVISOR TRAINING CERTIFICATION

The Supervisor must receive a certificate of completion from the training provider. The certificate must contain the following elements:

- A specific reference to “Fuel Safety Supervisor” training.
- The name of person trained.
- The date the training was completed.
- The verbiage “Has successfully completed all classroom and practical application for the requirements of 14CFR §139(b)(1) through (b)(6) and §139(e)(1)”

Note: A certificate of training that does not meet these requirements is not valid, and the holder will not be considered in compliance with these requirements. Here is an example of a valid certificate:



c. SPECIFIC TRAINING: OTHER FUELING EMPLOYEES

All other employees who fuel aircraft, accept shipments or otherwise handle aviation fuel must receive at least initial on-the-job training from the Supervisor. At a minimum, this training shall include:

- Bonding procedures and equipment.
- Public protection.
- Control of access to fuel storage areas.
- Assuring the safe condition of fuel handling vehicles and equipment.
- The safe operation of mobile fuelers on airport apron and parking areas.
- Fire safety in fuel storage areas.
- Fire safety in fuel trucks.
- NFPA 407 (City of Vero Beach adopted fire code) and Airport Standards.
- **Hands-on fire extinguisher training.**

All employees who handle aviation fuel must also receive recurrent training in the above subjects, including hands-on fire extinguisher training, every 24 consecutive calendar months. The hands-on fire extinguisher training must be accomplished ***within 60 days before or after the date of their training***,

Fueling Agents are responsible for ensuring that their employees are trained in accordance with these guidelines, and for keeping documentation of all employee training.

Note: All training for other fueling employees may be provided in-house by the supervisor, or may utilize commercial training providers, at the discretion of the Fueling Agent.

Fueling employee training must be documented and provided to the Airport Director's office. ***Training records must always indicate that the fueling employee's most recent approved training occurred within the preceding 24 calendar months***

!!Reminder!!...A Fueling Agent that is not in compliance with these regulations is not authorized to sell fuel on the Vero Beach Regional Airport.

Although training on the Airport's Fueling Fire Safety Standards is not mandatory, Airport Staff is available to conduct a training session upon a tenants' request. Should you have any questions or need further information about these regulations, or to schedule Standards training, please contact Brandon Dambec, Airport Operations Manager, at (772) 978-4930 Ext. 105.

4. OVERVIEW OF STANDARDS

a. FUEL STORAGE AREAS AND LOADING/UNLOADING STATIONS

The following basic standards apply to your Fuel Storage Areas:

- Fuel storage areas shall be fenced, locked when unattended and posted with signs to reduce the chance of unauthorized entry and/or tampering.
- Fuel storage areas and unloading/loading stations shall be posted with “No Smoking” signs.
- Fuel storage areas and unloading/loading stations shall be free of materials, equipment, functions and activities that could be ignition sources.
- Piping shall be protected from damage by surface vehicles
- Piping, filters, tanks and electrical components shall be electrically bonded together and interconnected to an adequate ground.
- Piping must be marked with product type and direction of product flow.
- At least one fire extinguisher, with a minimum rating of 40-B:C and a minimum capacity of 20lbs dry chemical agent shall be provided at each fueling vehicle loading position or rack. Fire extinguisher locations shall be conspicuously marked by a high visibility sign or extinguisher cover.
- Electrical equipment, switches and wiring in fuel storage areas and unloading/loading stations shall be explosion proof and reasonably protected from heat, abrasion or impact which could cause an ignition source.
- Unloading/loading stations shall be equipped with a bonding wire and clamp to facilitate a prompt, definite electrical connection between the station and tankers and Fueling vehicle.
- Loading station hoses shall be equipped with a deadman control feature.
- Only approved aviation fueling hoses shall be used. Loading station hoses shall be free of blisters, nicks and cuts, separation, or abrasions.
- Loading stations shall be equipped with a conspicuously marked emergency cutoff capable of stopping all fuel flow with one physical movement. The bottom of the sign showing the location of the emergency cutoff must be at least 7 feet above grade. Emergency cutoff systems must be functionally tested every 6 months.



b. FUELING VEHICLES

The following basic standards apply to your Fuel Trucks:

- Fueling vehicles shall be marked with “No Smoking”, “Flammable”, product type and HazMat placards on all 4 sides. Placards must be of contrasting colors, with letters at least 3 inches high, and must be clearly legible and not faded.
- A “No Smoking” sign shall be conspicuously posted in the cab of each fueling vehicle. Smoking equipment such as cigarette lighters and ashtrays shall not be present, or shall be disabled.
- Fueling vehicles shall be equipped with a minimum of two fire extinguishers, each with a minimum rating of 40-B:C and a minimum capacity of 20lbs dry chemical agent, and each accessible from a different side of the vehicle.



- Fire extinguishers stored in enclosed compartments shall have their location marked by placards.

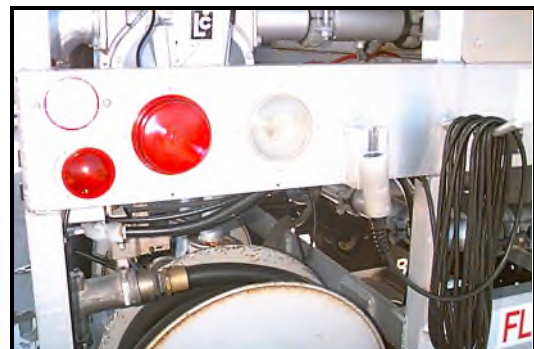


- Fueling vehicles shall be equipped with an emergency shutoff system capable of stopping all fuel flow with one movement or motion. Emergency cutoffs shall be boldly marked with a placard that contains the word “fuel” and indicates the action required to initiate the cutoff of fuel flow. The cutoff system must be functionally tested every 6 months



- Fueling vehicles shall be equipped with a bonding system, to facilitate prompt, definite electrical connection to the aircraft being fueled.

- Electrical equipment such as lights, switches and wiring in fueling vehicles shall be explosion proof and reasonably protected from heat, abrasion or impact, which could cause an ignition source.



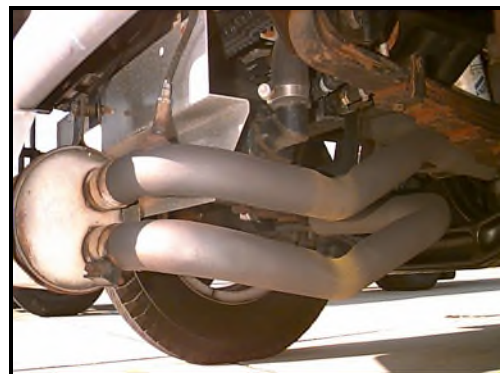
- Fueling vehicles shall be equipped with bonding wires and clamps to facilitate prompt, definite electrical connection to the aircraft being fueled.
- Fuel systems on fueling vehicles shall have electrical continuity between metallic or conductive components.
- Fuel system piping on fueling vehicles and cabinets shall be reasonably protected from impact or stress that could cause fuel spillage.

- Only approved aviation fueling hoses shall be used. Fueling hoses shall be free of blisters, nicks and cuts, separation, or abrasions that expose the reinforcing material.



- All fueling hoses on fueling vehicles shall be controlled by a deadman flow cutoff feature. For overwing fueling hoses, the hose mounted nozzle serves as the deadman control. Underwing hoses shall be controlled by a separate valve actuation device.

- Fueling vehicles shall be equipped with a spark arrestor and leak-free exhaust system terminating in a standard baffled muffler. Fueling vehicle shall contain no feature that would allow fuel or concentrated fumes to contact the exhaust system if overfilled.



- Fuel trucks shall have an integral brake interlock system to prevent the vehicle from being moved unless all hoses and nozzles are stowed, and bottom-loading couplers have been disconnected from the vehicle.

c. SELF-SERVICE FUELING FACILITIES

The following basic standards apply to your Self-Serve Fueling Facilities:

- Self-Serve facilities shall be prominently posted with “No Smoking” signs.
- Dispensing devices must be located on an island, or be protected by bollards or other suitable means to prevent fuel spill or fire hazards due to aircraft or vehicle collision.
- Piping, filters, tanks and electrical components must be electrically bonded together and interconnected to an adequate ground.
- Piping must be marked with product type and direction of product flow.
- Tanks shall be marked with No Smoking, Flammable, product code and DOT HazMat labels on all visible sides of tanks.
- Area around Self-Serve facilities shall be maintained free of weeds, trash, equipment and functions that could provide a source of ignition.
- All equipment shall be maintained free of leaks.
- Emergency instructions shall be provided at the dispensing area and also at the emergency shutoff.
- Two fire extinguishers, rated at 80 B:C or higher and containing at least 20 pounds of dry chemical, are required: 1 at dispensing equipment and 1 at emergency shutoff.



- Emergency Fuel Shutoff Required:
 - Located more than 20 feet, but less than 100 feet from facility.
 - Identified by a sign, the bottom of which must be at least 7 feet above grade.
 - System must be functionally tested every 6 months.



- Electrical equipment, switches and wiring in Self-Serve fueling facilities shall be explosion proof and reasonably protected from heat, abrasion or impact which could cause an ignition source.
- Self-Serve facilities shall be equipped with a bonding wire and clamp to facilitate a prompt, definite electrical connection between the dispensing device and aircraft.
- Hoses used must be Aircraft Fueling hose, and shall be free of blisters, nicks and cuts, separation, or abrasions that expose the reinforcing material, and stored with no sharp bends or kinks.

d. OPERATIONAL PROCEDURES

- Only authorized personnel trained in fire safety fuel handling, in compliance with the requirements of part A of these standards, shall be allowed to fuel or defuel aircraft.
- Fueling personnel shall not carry matches or cigarette lighters while operating fueling vehicles or during fueling operations. Smoking is prohibited within 50 feet of a fueling operation.
- Fueling vehicles shall be parked at least ten feet from each other, and fifty feet from any building.
- All fueling equipment shall be in good operating condition and free of fuel leaks.
- Fire extinguishers shall be sealed, charged and inspected by a qualified fire extinguisher service company annually, and inspection tags or stickers shall be maintained on the extinguishers.
- Fueling equipment shall be bonded to the aircraft to be serviced prior to making any fueling connection. The bonding connection shall be maintained throughout the fueling operation, and removed only after fueling connections have been removed.
- Refueling vehicles shall be chocked when fueling is in progress.
- Fueling operations shall be suspended when, in the opinion of a fueling agent or a fueling agent employee, there are lightning discharges near enough to the airport to pose a risk of explosion or bodily harm.
- Deadman controls on fuel loading stations, self-fuelers and fueling vehicles shall not be blocked or tied open while fuel is flowing.
- Fueling is never permitted inside of a hangar or any enclosed area. Fuel trucks shall not be parked or stored inside a building, except a building that is specifically designed and intended for fuel truck storage.
- A sufficient supply of quick-absorbent materials and other spill response equipment must be readily available.



e. MAINTENANCE FUELING AND DEFUELING PROCEDURES

Fueling and defueling of aircraft for the purpose of fuel system calibration or other maintenance procedures shall be accomplished in compliance with NFPA 410, *Standard on Aircraft Maintenance*.

f. FUEL SPILL PROCEDURES

The size of a fuel spill will determine the action to be taken. A spill that extends less than 10 feet in any direction, or is less than 50 square feet, is considered a small spill. A spill exceeding these parameters is considered a large spill. In the event of a fuel spill, the fueling agent must take the following actions:



SMALL SPILL – the flow of product was only momentary and has stopped:

- Contain the spill.
- Apply quick-absorb materials as required.
- Notify the Airport Director's office at (772) 978-4930 or (772) 538-1904 (after hours and weekends).

LARGE SPILL (over 10' in any direction, or over 50 square feet total) or a continuous flow spill such as a hose or tank rupture or damaged aircraft fuel tank:

- Call 911 to report the spill.
- Attempt to stop the flow and contain the spill **only if it can be done safely! Exercise judgment to avoid endangering yourself!**
- Notify the Airport Director's office at 772-978-4930 or Airport Operations at 772-538-1904.

Fire Department/ARFF crews will be in charge of the spill area upon their arrival.

NOTE: It is the responsibility of the Fueling Agent to clean up any fuel spill resulting from their fueling operations. The Fueling Agent must repair any damage to paved surfaces as a result of a fuel spill. Any spill, which occurs on unpaved areas, must be mitigated at the direction of the authority having jurisdiction.

g. DIESEL EXHAUST FLUID (DEF) SAFETY MITIGATION

The safety of flight issue caused by fuel being contaminated by DEF and causing engine damage and possible engine failures can be mitigated by Fueling Agents, using the following guidelines:

Storage:

- DEF and other fluids, oils and chemicals shall be stored in a separate location from Fuel Systems Icing Inhibitors (FSII) and other aviation fuel additives.
- DEF and FSII shall be stored in their original containers provided by the manufacturer.
- Storage areas for DEF and FSII shall be secured by locks requiring separate keys.
- Keys for locks shall be labeled and kept on separate rings.

Handling:

- Only approved and trained personnel shall handle DEF, or fill equipment DEF tanks.
- Only approved and trained personnel shall handle FSII, or fill refueler FSII tanks.
- Transfers of DEF shall be recorded in a log which includes the date, time, transfer action, and the person completing the transfer.

Procurement and Labelling:

- DEF should be purchased in containers that differ from FSII.
- Original manufacturers labels for DEF and FSII shall be intact and clearly legible.
- Vehicle tanks used for storage and dispensing of DEF and FSII shall be clearly labelled with letters at least 3" in height.
- Equipment used to transfer DEF or FSII shall be product dedicated and labelled as such.

Training:

- Training shall be included for all staff on an initial and annual recurrent basis. Training for personnel shall be documented and recorded. Training records shall be kept for 36 months.
- Training shall include the purposes and differences between DEF and FSII, the different storage locations, the package and labelling differences, and the dangers of aviation fuel contamination with DEF.
- Training shall also include DEF fill points on vehicles requiring DEF, FSII fill points for jet fuel mobile refuellers, and the use of dedicated equipment when transferring DEF or FSII.