

Airport Fueling System Training Addendum

Facility: _____ Facility ID: _____					
	Code	Trainer	Date	Supervisor	Date

A. Aircraft Fueling Systems Inspection

1) Bonding requirement	NFPA 407.4.1.2.1				
a. A bonding cable is required at the fueling system, carts and vehicles					
b. Over wing fueling requires an additional nozzle bonding cable					
1. Provide a bonding cable to fueling systems, fueling carts and fueling vehicles					
2. Provide a nozzle bonding cable for overwing fueling					
2) Dead man controls	NFPA 407.1.7.1				
a. The valve that controls fuel flow to an aircraft shall be a dead man control					
b. The fuel flow control valve will be one of the following:					
1. The Hydrant Pit Valve					
2. At the tank Outlet on a tank vehicle					
3. A separate valve on the tank vehicle					
4. On the hose nozzle for over wing servicing					
c. Provide a dead man control					
1. Information: This is a switch on a long cable that they must hold while pumping fuel. Let go of the switch, and fuel flow ceases.					

B. Nozzle Requirements

1) Overwing fueling nozzles shall not have notches or latches that allow the nozzle to remain locked open	NFPA 407.4.3.16.2				
a. Remove latch open devices from overwing fueling nozzle					
2) Overwing fueling nozzle shall have a cable with a clip or plug for bonding to the aircraft	NFPA 407.4.3.16.2				
a. Provide a cable on the nozzle for static bonding					
3) Underwing fueling nozzles must be of the dry break design	NFPA 407.4.3.16.3				

a. Insure a nozzle is installed that cannot be opened until it is attached securely to the aircraft adaptor and cannot be removed from the aircraft adapter until fully closed				
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C. Aircraft Fueling Vehicles and Carts

1) Cables shall be provided on the vehicle or cart to allow bonding operations	NFPA 407.4.3.3.3			
a. Provide bonding cable				
2) Aircraft fueling tank vehicle shall have 2 fire extinguishers one mounted on each side of the vehicle with a rating of at least 20-bc	NFPA 407.4.3.9.1			
a. Provide 2 fire extinguishers rated a minimum of 20-bc one mounted on each side of the vehicle readily accessible from the ground				
3) Each hydrant fuel servicing vehicle or cart shall have at least one listed extinguisher with a minimum 20-b:c rating	NFPA 407.4.3.9.2			
a. Provide a minimum 20-b:c rated fire extinguisher readily accessible from the ground				
4) No smoking sign posted in cab of aircraft fueling truck	NFPA 407.4.3.11.1			
a. Provide no smoking sign in cab of aircraft fueling truck				
5) Cigarette lighters and ashtrays are not allowed in aircraft fueling truck	NFPA 407.4.3.11.2			
a. Remove or render cigarette lighter and ashtray inoperable				
6) Aircraft fuel trucks and carts shall have a sign on each side and the rear identifying the product in minimum 3" high contrasting letters the word flammable shall also appear on the sign	NFPA 407.4.3.18			
a. Provide signage with letter size minimum 3 inches high identifying product and including the word "flammable"				
7) Fuel truck must be equipped with two emergency fuel shutoffs – one on each side of vehicle. They shall be remote from fill openings and discharge outlets, and be operable from a ground-level standing position.	NFPA 407 4.3.15.2			
8) Emergency fuel shutoffs referenced above must be placarded EMERGENCY FUEL SHUTOFF in 2 inch high lettering of contrasting color. The method of operation shall be indicated by an arrow or by the word PUSH or PULL as appropriate.	NFPA 407 4.3.15.3 FACILITY			
9) Fuel area signage				
a. Entrances to fueling areas shall be posted with "No Smoking" signs.	NFPA 407 4.1.3			
10) Each tank vehicle loading station shall be provided with an emergency shut off switch in addition to the deadman control	NFPA 407.4.3.22.1			
a. Provide an emergency stop switch at vehicle loading station				

11) Emergency shut off station shall be placarded "emergency fuel shutoff" in letter size minimum 2" high posted a minimum of 7 ft. High	NFPA 407.4.3.22.2				
a. Post emergency shut off sign minimum 2" letter size mounted a minimum of 7 feet above grade					
12) Each fuel system shall have a means of completely shutting off the fuel flow in addition to the deadman requirement	NFPA 407 4.4.5.1				
a. Install an emergency shut off control that will shut off the flow of fuel in an emergency					
13) Emergency shut off station shall be placarded "emergency fuel shutoff" in letter size minimum 2" high posted a minimum of 7 ft. High	NFPA 407.4.4.5.7				
a. Post emergency shut off sign minimum 2" letter size mounted a minimum of 7 feet above grade include action required such as, push, pull, break glass					
14) Dispensing devices emergency controls shall be designed to allow only authorized personnel to reset the system after an emergency fuel shutoff	NFPA 407.4.6.6.2				
a. Emergency shut off controls at fuel dispensing locations require interaction by authorized personnel to reset					

D. Dispensing devices

1) Dispensing device must be listed or approved	NFPA 407.4.6.3.1				
a. Replace dispensing device with listed or approved device					
2) Dispensing device must have listed or approved emergency shutoff valve with fusible link or other thermally actuated device to close the valve automatically in case of fire. Valve will also have a shear section that closes the valve under impact. Valve will be rigidly mounted at the base of the dispenser. (pressurized systems only)	NFPA 407.4.6.3.3				
a. Provide properly mounted listed or approved emergency shut off valve. Keep fusible link clean of dirt and paint					
3) Dispensing devices shall be located on an island or protected with pipe bollards or other suitable means to provide collision protection	NFPA 407.4.6.3.4				
a. Provide dispenser with collision protection					
4) Hose shall comply with requirements of api bull 1529 and 2 or more lengths of hose shall not be coupled together	NFPA 407.4.6.4				
a. Hose must have designation "aircraft fueling hose-api 1529/(edition date it meets;e.g.1529/1998") hose will have identifier a minimum of every 2.5 feet					

5) Dispensing devices emergency controls shall be designed to allow only authorized personnel to reset the system after an emergency fuel shutoff	NFPA 407.4.6.6.2				
a. Emergency shut off controls at fuel dispensing locations require interaction by authorized personal to reset					
6) The emergency shut off should be acceptable to the ahj and be more than 20 ft but less than 100 ft from dispensers	NFPA 407.4.6.6.3				
a. Install an emergency shut off more than 20 feet but less than 100 feet from the dispensers					
7) A clearly identified means to notify the fire department shall be provided and shall be in the immediate vicinity of each emergency shut off control	NFPA 407.4.6.7				
a. Install a means to notify the fire department in the vicinity of each emergency shut off control					
8) Each facility shall have a minimum of 2 fire extinguishers 1 located at the dispenser and 1 located at each emergency shutoff control the minimum rating shall be 20-b:c	NFPA 407.4.6.8				
a. Provide fire extinguishers at the dispenser and the emergency shut off control					
9) In addition to the emergency shut off sign emergency instructions shall be conspicuously posted in the dispensing area and at the emergency fuel shut off control	NFPA 407.4.6.9				
a. Provide labeling at the dispensing area and the emergency shut off control. Labeling shall include address of the site and the following or equivalent wording: emergency instructions in case of fire or spill: (1)use emergency shut off (2) report accident by calling (specify local fire emergency reporting number) on phone(3) report address of site (list address here)					
10) Operator instruction posting	NFPA 407.4.6.10				
a. Post operating instructions to include: proper operation and use of all equipment, correct bonding procedures, procedures that are employed to dispense fuel safely, the location and use of the emergency fuel shut off controls, the use of the available fire extinguishers, and the procedures to be used in the event of an emergency.					
11) Airport aboveground piping	NFPA 407 4.4.6.4				
a. Piping, valves, and fittings shall be of a metal, suitable for aviation service. (NOTE Piping runs for aviation fuel are typically constructed of stainless steel and welded pipe joints. Cast-iron, copper, and galvanized steel piping, valves, and fittings shall not be permitted.)	NFPA 407 4.4.6.5				
12) Setbacks: Aboveground tanks used for public access fueling shall be at least 30 feet the point of fuel transfer into the aircraft	ATCP 93.650(2)				
a. Properly mark "No Fueling Area" within 30 feet of dispenser					

13) Setbacks: Aboveground tank setbacks from buildings, public ways and property lines shall follow the requirements in Table 93.615-B.	ATCP93.650(2)(b)				
a. Submit variance for current location or plan approval to relocate tank system to obtain required setbacks					
14) Setbacks: The point of fuel transfer into the aircraft, from any tank or truck supply source, shall be at least 100 feet from public traffic or assembly areas at public events, unless a reduced distance is authorized by the fire chief.	ATCP 93.650(2)(c)				
a. Do not allow fuel transfer within 100 feet of public areas					
15) Collision protection: Barriers shall be provided to protect tanks, pumps, dispensers and vents from collision damage from aircraft or other vehicles in accordance with s. ATCP 93.430.	ATCP 93.650(3)				
a. Where subject to collision from aircraft, barriers protecting an aboveground tank shall extend at least 12 inches above the top of the tank.					
b. Install proper collision protection					
16) Product identification: All fuel handling equipment and installations within the scope of API 1542, whether new or existing, shall be marked as referenced in the standard.	ATCP 93.650(4)				
a. All aboveground tanks and fill pipes for underground tanks, whether new or existing, shall be labeled or otherwise marked using the identification scheme in API 1542.					
b. Properly identify all product tanks, fills, and valves					
17) All public access, self-service fueling hose that is installed or replaced on or after February 1, 2009, shall be reeled or racked unless approved otherwise by the authorized agent or the department.	ATCP 93.650(5)				
a. All fueling hose shall be protected from damage.					
b. Keep hose reeled or racked					
18) Individuals who dispense fuel into aircraft shall be knowledgeable in operations and emergency procedures specific to the fuel and fueling systems they are operating.	ATCP 93.650(6)				
a. Provide training for system operators					
19) Amphibious aircraft: Shoreline fuel dispensing systems for amphibious aircraft shall follow the requirements of s. ATCP 93.640	ATCP 63.650(6)(b)				
a. Remove nozzle latch open device					