

INFORMATION ON THE EMERGENCY FUEL SHUT OFF SYSTEM REQUIRED FOR SAFE OPERATION OF THE FUEL HYDRANT SYSTEM

Emergency Fuel Shut Off System:

The Emergency Fuel Shut off System is critical to the safe hydrant fueling operations. It is required to be functional at all times when fueling operations are active. There are two systems which work independently to shut down the pumps at the fuel farm. The Airport fire alarm system shuts down the pumps and provides immediate fire alarm notification of fuel spill location for suppression crews. The SFO FUELS system shuts down the pumps and closes valves to isolate the boarding area and/or pipeline segment.

Emergency System Activation:

Should the system activate, there is an immediate response by the SFFD for a fuel spill. After the fire department authorizes restoration of the fueling system, a key is required to reset the button. Resetting shall not take place without authorization by the Fire Department. The Airport tech shop/communications center must reset the fire alarm first. Once reset (which can take several minutes), the SFO FUELS operator can reset their system. This dual approach allows for a high level of oversight (from each side) and some built in redundancy for conditions where one system is compromised.

Planned Shutdowns for the SFO FUELS and or SFIA Fire Alarm EFSO components:

As previously stated, there are two components to the EFSO system: the fire alarm side and the SFO FUELS side. There are separate fire alarm panels for each component. BICE permits are required to modify any portion of the systems. The configuration varies per boarding area and building. Therefore, the functional testing must be coordinated through both the Airport SFO Electrical Tech Shop and through the SFO FUELS Operations Manager.

For the shutdown to perform the work, the risk must be minimized by doing as much wiring work as possible ahead of the shutdown. A work plan must be submitted prior to working on the system and performing acceptance testing. Tie-in is done after hours (during the hours of approximately 2 to 4 am) when fueling is discontinued for the evening. A reacceptance test on the device(s) must be performed directly after the tie-in or repair so that full function is restored prior to fueling operations at the gate. SFO FUELS, SFO Electrical Tech Shop, BICE Electrical Inspector, and Fire Inspector shall be notified of the construction work schedule. SFO FUELS electrician also must be present when work is done on the SFO Fuels system. (Please insure that he is notified ahead of this work so that he can include this in his schedule.) Request for Inspections must be routed to both BICE and Fire per the standard construction procedures.

Unplanned Shutdowns:

Should either the SFO FUELS EFSO system or the SFIA EFSO fire alarm monitoring of EFSO system become impaired or nonfunctional, the Fire Department requires immediate notification to: Airport Fire Marshal at 650 821-5351 and airportfiremarshal@flysfso.com. The Airport Duty Manager 650 821-5222 shall also be notified. Clear and immediate communication with all parties is required as the hydrant system fueling operations shall cease in areas where there is no emergency fuel shut off capability. SFO FUELS shall work with the Airport Fire Marshal to insure that valves serving affected areas are locked out and the pressure in the line is bled off.

CODE REFERENCES: Emergency Fuel Shut Off System Requirements: 2016 California Fire Code, Section 2006.2 and 2006.6; N.F.P.A. Standard 407, 2012 ed., Section 4.4.5

Fire Alarm System Requirements: California Fire Code, Sections 901.7 and 907.1; 2016 San Francisco Fire Code, Administrative Bulletin 2.01 Submittal Guidelines for Fire Alarm: http://sf-fire.org/sites/default/files/SFFD/BFP/1%20Documents/2016%20Final%20ABs/2.01%202016%20Fire%20Alarm%20Submittals_0.pdf