



# Juneau International Airport Study Guide for Fuel Handlers

## Table of Contents

Purpose.....	1
Personal Safety.....	2
Fuel Truck.....	2
Airfield Driving.....	5
Fueling Operations.....	9
Spill Prevention, Control, and Clean Up.....	10
Environmental Protection.....	11

## Purpose

The purpose of this study guide is to provide the minimum requirements for safety and fueling training at the airport. Further training must be provided by the tenant fueling agent, per CFR 139 requirements. This study guide is for all fuel handlers at the airport, not just commercial fuel handlers.

For commercial fuel handlers, Part 139.321 requires at least one supervisor with each fueling agent shall have completed an aviation fuel training course approved by the FAA. Each fuel handler must have completed or enrolled in an authorized aviation fuel training course that will be completed within 90 days of initiating duties, and recurrent training at least every 24 consecutive calendar months. In addition, commercial fuel providers must submit training records to the airport by December 31<sup>st</sup> or as requested.

All other employees who fuel aircraft, accept fuel shipments, or otherwise handle fuel must receive at least initial on-the-job training and recurrent instruction every 24 consecutive calendar months in fire safety from a trained supervisor.

Juneau International Airport will be implementing a new requirement for anyone fueling an aircraft. All persons fueling aircraft will be required to have recurrent fueler training annually, and have DL FUEL endorsement on their JNU ID badge. Anyone caught fueling an aircraft without training and endorsement may be cited and/or lose badge/access privileges.

In addition to providing safety and environmental considerations, this study guide emphasizes on the importance of fuel driver safety. Many fuel drivers forget of the extreme ramifications of even the smallest accident. It is extremely important to remember to follow the safety rules and airport guidelines while driving-handling fuel.

The information provided in this study guide is in accordance with:

- CFR Part 139.321 Handling and Storage of Hazardous Substances and Materials.
- National Fire Protection Association 407 Standards for Aircraft Servicing (2007)
- Advisory Circular 150/5230-4 Aircraft Fuel Storage, Handling and Dispensing on Airports.
- International Fire Code

## Personal Safety

When working with any hazardous material, training is the greatest asset to ensure safety. With proper initial and recurrent training, fuel handlers will be able to react properly to any situation that arises. Before every operation, all fuel handlers should ensure they have the proper personal protective equipment. Some of this equipment may consist of safety goggles, face mask, gloves, and foot wear. It is also recommended to not wear clothes that can generate enough static electrical charge, which can ignite the fuel being dispensed. Some types of clothing material not recommended to wear are polyester, nylon, wool, and Dacron.

Fuel handlers shall not smoke near fuel, fumes can ignite easily. With this said, no fuel handler may carry matches, cigarette lighters, or any type of igniting device within 50 feet of any fueling equipment, facilities, or aircraft. Reminder: there is no smoking on the airfield ramps at any time.

Individuals using cell phones while driving fuel trucks are subject to the same state statute as if operating on public roads. Further, the use of cell phones is prohibited while dispensing or handling fuel.

## Fuel Truck

There are many fire safety requirements for fuel trucks. To ensure your equipment is ready for every day, a quick walk around is encouraged. Some of the things to look for are:

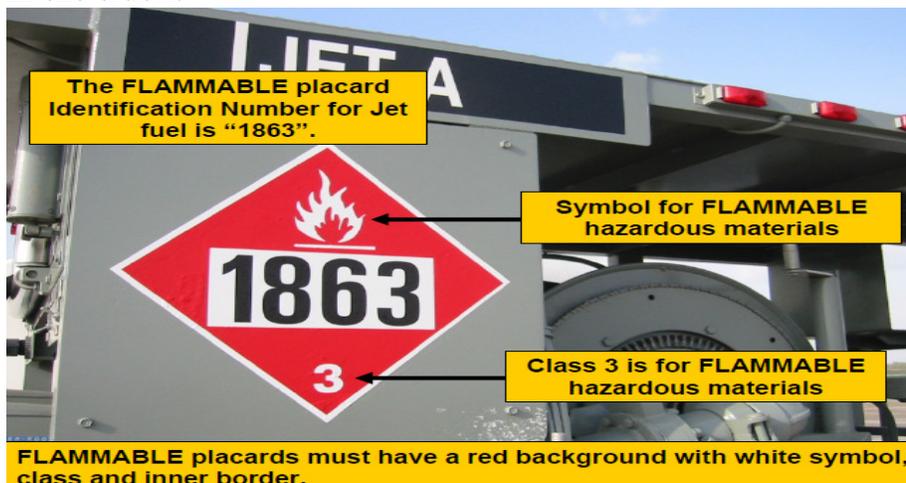
- “NO SMOKING” signs should be displayed in the cab, and on all sides of the vehicle. Smoking equipment, such as cigarette lighters and ashtray, should be removed or made inoperable.



- Rotating amber beacon works, is in good repair, and is on when operating the vehicle.
- Tank owner and contact phone number are displayed on at least two sides.
- There are at least two emergency fuel shut off and they are clearly labeled. Example below is a properly marked and placarded fuel truck.



- Placards should be visible and not faded.
- The required hazmat placard should be appropriate for the type of fuel in the truck.



- Make sure you have at least two 20-B:C fire extinguishers and they are readily acceptable on both sides of the vehicle.
- The extinguishers should be protected from weather elements, in either a cabinet or enclosed compartment.
- Fire extinguishers are Class BC high volume extinguisher, and are up to date.

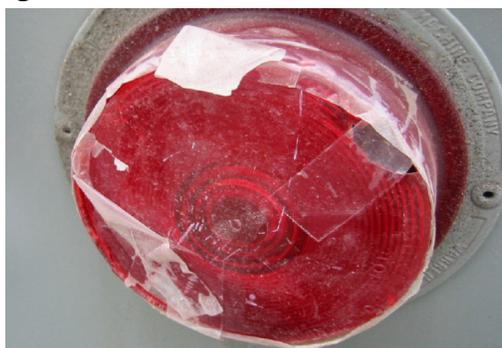
- Fire extinguishers are clearly marked, in at least two inch lettering. Example below (left) is a properly marked and stored fire extinguisher.



- Booms and absorbent pads are located on the truck, in good repair, and easily accessible in an emergency. Example above (right) is a boom, used in fuel spill clean up.
- Hoses should not have any blistering, saturation, cuts, or nicks. Example below is a damaged fuel hose.



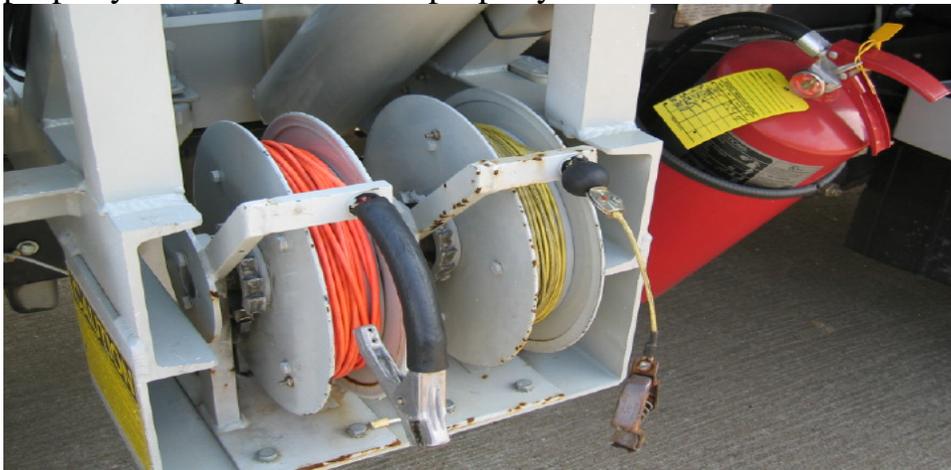
- Make sure the equipment you use and the vehicle are free from accumulation of oil and grease and are all in good repair. Example below shows a damaged tail lens that could provide potential ignition sources.



- Look around the vehicle and ensure there is no fuel, oil, or hydraulic leaks. Example of fuel spill below.



- Fuel trucks should be parked with at least 10 feet of clear space.
- Grounding cable is free from damage, frays, kinks, and is stored properly. Example below of properly stored cables.



## **Airfield Driving**

Fuel trucks pose a potential danger to drivers and people in the vicinity. Many people who handle fuel sometimes forget how dangerous their cargo is. Before any fuel handler may drive on the airfield he/she must pass the Ramp Driving Course. Further, there are a few driving rules that are emphasized directly to fuel truck drivers. Some of these rules are:

- **SMOKING** is NOT permitted in or near fuel trucks.

- Before driving the fuel truck ensure your amber rotating beacon is working, in good repair, and **on** at all times while operating on the airfield.
- Fuel trucks are more difficult to come to an abrupt stop, due to the weight of the cargo shifting, never drive over the 20 MPH airfield speed limit.
- When transiting around the airfield you must stay in the painted roadways.



- Fuel trucks must come to a complete stop at all stop bars. Before proceeding, look around the area for incoming/departing aircraft and the movement of helicopter rotor blades. Stop bars are located at intersections and areas of high traffic, particularly around helicopter operations.



- Transiting near helicopter operations:
  - Be aware of the helicopter operation areas.
  - Make sure to look around for incoming/departing helicopters.
  - If a helicopter has a rotating rotor blade, you must stop and evaluate the scene. If the helicopter is still loading you may continue on with extreme caution. If you are unsure either wait for the helicopter to depart or find an alternate route to your destination.  
*Example:* when transiting the ramp to the east general aviation hangars, a driver must stop at the stop bar near C-1 intersection, look for helicopter activity, then continue past Coastal Helicopter helipad if there is no rotor movement. If there is a helicopter with rotating rotor blades, either wait for the aircraft to depart or shut down; or drive around by taking the north roadway toward the rental cars and then east toward Ward Air. Please review map for a visual aid.
- The only time you may drive near a moving propeller is if you are directed by the aircraft ground crew.
- Fuel trucks, whether loaded or empty, shall **not**:
  - Enter hangars.
  - Be parked within 10 feet of any other vehicle.
  - Be parked unattended within 50 feet of any building, unless under maintenance. Below are examples of what not to do.



# JNU Airfield Drive Routes



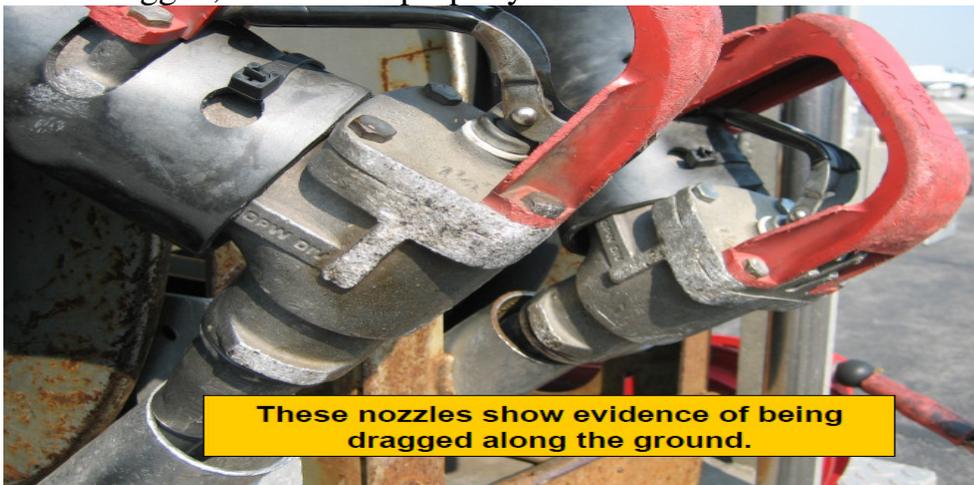
## Fueling Operations

Each fueling tenant will have their own fueling operating procedures. No matter the tenant specific fueling procedures, safety is always the priority. The following are some airport required fuel operation safety procedures:

- When parking the fuel truck, park it so that it may evacuate the area quickly in an emergency. Never park under or beside the Airport Terminal or under an aircraft wing.
- Emergency brake must be set before leaving the vehicle.
- Remove keys from the ignition of the unattended fuel truck.
- Chock the wheels, with approved wheel sized chocks, after parking the fuel truck.
- Before dispensing fuel, attach the grounding wire to the aircraft. Examples below show grounding cables and an attachment area.

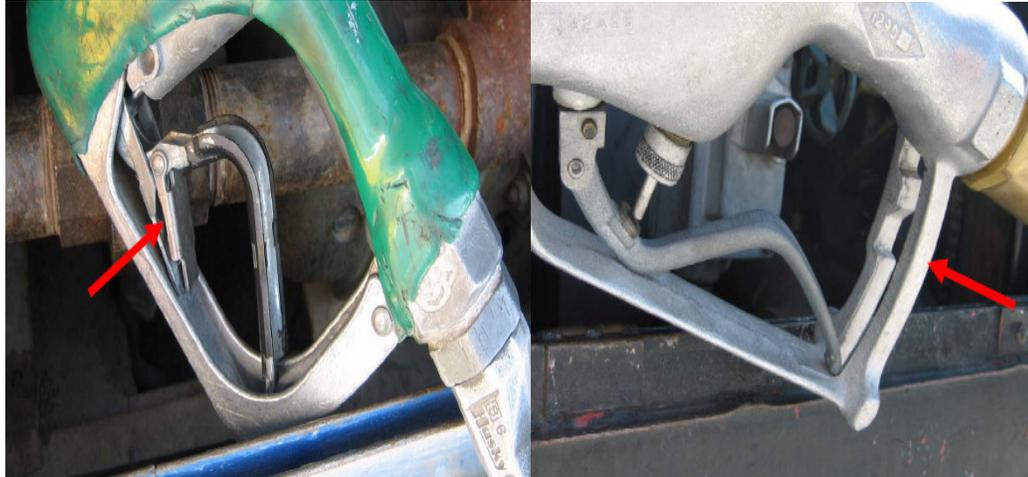


- Use fuel handle when pulling the hose, try to prevent the hose from dragging on the ground. Examples below show nozzles that have been dragged, rather than properly handled.



- Never rest the hose or nozzle on the aircraft skin.

- Never block the deadman control in the open position. A deadman control is any device that will stop the flow of fuel when released by the operator.
  - Examples below depict a latches that can bypass the deadman control (not compliant).



- Upon completion of fueling operation, properly stow all hoses and materials used during fueling.
- Before and after fueling, make sure to check your truck, aircraft, and the surrounding area for any spills (fuel, oil, hydraulics, etc.)
- Reminder: the fuel company and aircraft company providing their own fueling are responsible for ensuring all fuel trucks, personnel training and ancillary equipment (chocks, spill prevention, fire extinguisher, placards, etc) meet current requirement. Any company not meeting requirements will be required to cease fueling operation until such requirements/code are met.

## **Spill Prevention, Control, and Clean Up**

Fuel spills can degrade asphalt pavement, contaminate the local environment, and can cause fire which is a hazard to people and/or property. Fuel handlers should follow correct safety procedures to ensure spills and leakage do not happen. In addition, fuel handlers should make sure all equipment is in good repair before operating.

If you encounter a fuel spill:

1. Stay calm and stop the flow of fuel. (Do not start or turn off any equipment, other than fuel flowage. This could lead to a backfire from the engine and ignite the spill.)

2. Pull out a fire extinguisher and place it upwind of the spill.
3. Evaluate the extent of the spill.
4. If the spill is more than you can handle, first contact **911**, followed by notifying your supervisor of the incident and the severity of the spill. You or your supervisor will need to contact the Airport and Department of Environmental Conservation (DEC), regardless of the size or extent of the spill.
5. If you can handle the clean up proceed to start absorbing the fuel.
6. If you can not handle the clean up, stand with the fire extinguisher in an upwind location, pointed at the spill and direct people away from the area. Await Fire Department (ARFF) response.

Example below is a DEC placard that must be visibly posted at all fuel tenant offices.

**REPORT ALL**

**OIL AND HAZARDOUS  
SUBSTANCE SPILLS**

**ALASKA LAW REQUIRES REPORTING OF ALL SPILLS**  
**During normal business hours**  
 contact the nearest DEC Area Response Team office:

<b>Central Alaska</b>	<b>Anchorage</b>	<b>phone:</b> (907) 269-3063
		<b>fax:</b> (907) 269-7648
<b>Northern Alaska</b>	<b>Fairbanks</b>	<b>phone:</b> (907) 451-2121
		<b>fax:</b> (907) 451-2362
<b>Southeast Alaska</b>	<b>Juneau</b>	<b>phone:</b> (907) 465-5340
		<b>fax:</b> (907) 465-2237

**Outside normal business hours, call:**  
**1-800-478-9300 (International 1-907-428-7200)**




**Alaska Department of Environmental Conservation**  
 Division of Spill Prevention and Response

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## Environmental Protection

Fueling tenants should have an environmental protection plan in place to address fuel spills from entering water drains and soil. If a spill does occur, and safety has been established, measures should be taken to protect the environment. Fuel spills should be contained to the best of the responder's ability. If the fuel can not be contained in a certain area, absorbent booms should be placed around drains and against the soil line of the contaminated area, while clean up is under way.

Fuel or petroleum products may only be discharged in approved containers. Deliberately discharging fuel or petroleum products into any drain system or soil is a violation of the Environmental Protection Agency (EPA).