

Alaska Railroad Corporation Equipment, Railcar and Locomotive Remote Fueling Procedures

- A) Introduction:** The ARRC's number one priority is the safety of the people on our property. By adhering to the following fueling process, this can be done both safely and expeditiously. It is the responsibility of the contracting company that is providing service to the ARRC to read and train their employees on the following procedure.

The fueling process is divided into three categories according to the type of equipment that is filled, which are as follows:

1. Remote fueling of track repair and maintenance equipment, heavy off highway equipment, generator vans, highway tractors, forklifts, and mobile tanks used for remote worksites.
2. Baggage cars with gen-sets: (100, 101 and 111), coaches: Aurora (2000), Denali (A-1) and DMU (751).
3. Remote filling of locomotives.

- B) Objective:** To fuel Alaska Railroad equipment per our request in a safe and expeditious manner while strictly adhering to environmental regulations, generally accepted safety practices, and quality control procedures.

C) Procedures for fueling:

1. Remote HD equipment fueling:

- The contractors have worked with the supervisors of Alaska Railroads (ARRC) heavy equipment shops and TOFC yard areas to learn the location of all the equipment they use on a routine basis in order to fuel them on a regular basis. This fueling procedure is done generally 6 or 7 days a week depending on work load. ARRC will contact you when there is additional equipment to be filled elsewhere. This equipment is usually track repair equipment.
- When performing **ANY** work on ARRC property (including remote sites) the wearing of hardhats, safety vests, steel toed boots and safety glasses is mandatory. This is in addition to any other personnel protective equipment required for the particular job.
- Care should be exercised when performing these fueling operations as most of the equipment requires climbing upon it to reach the fuel cap. Use three point contact at all times and use the ladder from the truck whenever necessary.
- Use an intrinsically safe flashlight while fueling as necessary to check on fuel level.
- Use absorbent sheets around fill point to catch any backsplash of fuel.
- Proper procedures are to be followed and great care should be taken to avoid spills. Contact ARRC personnel immediately if a spill occurs. See the ARRC emergency contact list at the end of these procedures.
- Record the equipment number and volume pumped into the equipment on a sheet of paper. This sheet will be turned in with fuel meter ticket to the ARRC and the contractor's main office.

Remote HD equipment fueling (continued):

- Continue on to the next piece of equipment to fill. ARRC uses various pieces of their equipment throughout the year with some pieces used only during summer months and some used only during winter, or when it snows. Communication with ARRC personnel will help dictate when and if fuel is needed for a particular piece of equipment. Experience with ARRC equipment will help to manage this portion of the fueling process.
- Observe all speed limits and other traffic control devices when working on ARRC property.
- If any questions arise, contact an ARRC employee before proceeding with the fueling operation.
- All equipment that is fueled is diesel; do not fuel gasoline powered vehicles.

2. Baggage cars, coaches and DMU 751 fueling:

- Add red flags as described on page 5.
- 3. Baggage car gen-set tanks are fueled on an as needed basis. In addition to the baggage cars, there are three passenger coaches with a gen-set, Aurora (2000), Denali (A-1) and DMU (751).**
- The wearing of hardhats, safety vests, steel toes boots and safety glasses is mandatory while performing work on the ARRC property.
 - The baggage cars have a tank mounted underneath the car that holds approximately **500** gallons of diesel for their on board generator.
 - They are set up with a fill on either side of the car. There is a dial gauge on the side of the tank showing the tank level.
 - Care should be taken when filling any car that still has the flap style fill caps as you can only fill this car to $\frac{3}{4}$ full to prevent fuel from running out the opposite side fill cap.
 - The Denali (2000) coach is much like the baggage car, as it can be fueled from both side and **does not** require the (Snyder nozzle). This unit has a 300 gallon fuel tank and a fuel gauge on the right side of the coach.
 - The Aurora (A-1) coach requires the use of the (Snyder nozzle) due to the design of the tank and fills. This unit has a 300 gallon fuel tank and a sight glass to use as a reference when fueling.
 - The DMU 751 also requires the use of the (Snyder nozzle) due to the design of the tank and fills. This unit has a 600 gallon fuel tank and a sight glass to use as a reference when fueling. There is also an electronic gauge in the main cabinet on the DMU.
 - Place a bucket underneath the fill cap while filling it to catch any spillage. Also, use a small containment dike with an absorbent pad in it to catch any possible splash from the filling operation. Place the bucket inside this dike.
 - After filling is complete, be sure fill caps are secure, pick up any pads and drip bucket and return it to the truck.
 - In event of a spill, immediately notify ARRC personnel. If none are in the vicinity, use the emergency contact list at the end of these procedures.
 - Record the car number(s) on the meter ticket & invoice and have them signed by an ARRC employee if available.

4. Locomotive fueling:

- As requested by ARRC personnel, the fueling of locomotives will be required. This is usually done on gravel trains, coal trains, freights trains between Anchorage and Fairbanks (FOX or OX), work trains and yard units stationed in Fairbanks, Seward and Whittier.
- The wearing of hardhats, safety vests, steel toes boots and safety glasses is mandatory while performing work on the ARRC property.
- Make sure you stay off the “LIVE or Mainline” tracks unless you have been notified that they are blocked out by a track signal or under blue flag protection and that it is O.K. for to flag out that track (see flagging instructions on page 5). This includes turning the truck around on a crossing. Also, do not park the truck within four (4) feet of any of the tracks.
- Scheduling is done through the ARRC personnel responsible for handling the trains. Consideration will be taken to try and notify the contractor with as much advance time as possible (minimum 2 hours) in order to facilitate a rapid turnaround of the train. The ARRC personnel will let you know where the locomotives will be located and make you aware of any unusual flagging procedures and if you must work across another track (see flagging instructions).
- After you are notified of the arrival time of the train, schedule to have your truck loaded with the correct amount of fuel as requested by ARRC, collect all the correct fittings (Snyder nozzle), track/locomotive flags, spill containment dikes and proceed to the designated area to begin refueling.
- Notification of your arrival on the property to the appropriate ARRC personnel responsible for handling the trains is mandatory. ARRC sometimes has a contractor working at the same time to remove the sewage from the holding tanks on the locomotives, so you will have to coordinate with them also when doing the fueling.
- After arriving at the fueling area, determine if we will have to cross another track with our hoses to facilitate the fueling (see flagging instructions on page 5). After the tracks and locomotives are properly flagged out, check the gauges on the units to ensure they will hold what was ordered. Sometimes one unit will take more than another so adjust the amount dispensed to balance out the tanks on both units unless instructed otherwise by ARRC personnel. If there are extenuating circumstances that would prevent you from doing a safe fueling procedure, you must contact the ARRC personnel immediately so that we can get the situation resolved.
- Next pull out the containment dike for the fill area, unfold it and place it under where we hook up the (Snyder nozzle) to the tank fill.
- Place a 5 gallon drip bucket in the containment dike as well as at least one absorbent pad.
- The next step is to put a smaller containment dike under the tank vent and place a 5 gallon bucket in it in case tank should overflow.
- Connect the truck nozzle to the (Snyder nozzle) which is designed to adapt to the locomotives fill pipe. Wire together all cam locks on adapters to ensure they will not come apart during the refueling process.
- Verify that the fuel tank vent is not obstructed. If you cannot confirm the vent pipe is functional immediately notify ARRC personnel. Do not attempt to fuel the locomotive.

Locomotive fueling (continued):

- Connect the (Snyder nozzle) to the locomotive and begin pumping. Check for leaks in the nozzle assembly and discontinue pumping if found. Remedy the situation if possible and continue pumping.
- Monitor the fuel tanks capacity as it fills. Different locomotives have different types of gauges and capacity, and most also have sight glasses that show when tank is nearly full.
- Even though the tanks are equipped with an automatic shut-off, do not fill the tank completely full. This is to avoid any possible tank overflow. In most cases there is a white line showing the maximum fill on the tank sight-glass. If filling to the maximum fill line on the sight glass, be sure to read the sight glass that is on the lower end of the fuel tank if equipped.
- When there is no maximum fill line, fill to approximately 1/3 of the sight glass, reaching the second set of screws from the bottom.
- When proper fuel level is attained, shut off the nozzle and truck pump. Disconnect the (Snyder nozzle) from the locomotive and replace the fill cap. Collect up the buckets and pads and return them to the truck. Move the containment dikes to the next locomotive for fueling.
- Move the fuel truck into position and set up the buckets, pads and nozzles as done on the previous unit. Commence refueling this unit.
- When fueling is completed, disconnect the (Snyder nozzle) from the locomotive and replace the fill cap. Move the dike, hose and nozzle and buckets away from the locomotive and the tracks.
- Double check that the fuel caps were put back onto the fills on the locomotive tanks.
- Inform the appropriate ARRC personnel that fueling is completed. Record amounts loaded onto each locomotive on the meter ticket or invoice.
- After you are safely away from the locomotives and the tracks, you may break apart the (Snyder nozzle) from the truck nozzle (cam locked together). This needs to be done over a bucket in the containment dike. Ensure all pressure is relieved from the nozzle before breaking it apart. Make sure the remaining fuel retained from the nozzle fittings is retained in the bucket.
- Return hose, buckets, pads, and containment dike to the fuel truck.
- If any spill should occur that goes out of the containment dikes, stop fueling, shut down the equipment and immediately contact ARRC personnel. If no personnel are immediately available on site, go to the emergency contact list following these procedures.

**The DMU will be treated as a locomotive in regards to red flags.

**Baggage and coaches need to have track flags placed in front and rear of equipment on that track if no locomotive is attached to the cars. If locomotive is attached, flag as you would a train.

D) Flagging instructions:

- Yard switching area (without crossing tracks with hoses).
 - For a train.
 - Place one red track flag in front and in the center of the track of the lead/first locomotive where it can be plainly seen by any approaching track equipment. Also **attach** a red flag to the right hand side of the lead/first locomotive in plain view of the operator while sitting at the controls of the locomotive.
 - For locomotive(s) only.
 - The use of two red track flags is required. Place one red track flag on each end of locomotive consist in the center of the track where it can be plainly seen by any approaching track equipment. Also **attach** a red flag to the right hand side of the lead/first and the rear/last locomotive in plain view of the operator while sitting at the controls of the locomotive.
- Yard switching area (crossing tracks with hoses).
 - For trains or locomotive(s).
 - All red flags will be in place as stated above on equipment to be fueled.
 - Blue flag protection must be in place prior to crossing tracks with hoses to reach a locomotive to be fueled.
 - Blue flag protections will be provided by a mechanical employee or supervisor on the track that the hose will cross.
 - Blue flag protection will not be taken down unless it is known that contractor has verbally confirmed that fueling has been complete and all hoses/equipment are no longer obstructing track.
 - Due to the time and effort that is needed to provide blue flag protection, locomotive(s) will be left on a track where trucks can reach it without crossing tracks, unless crossing tracks is absolutely unavoidable. If it is determined that a track needs blue flag protection other than in a service area, a mechanical manager will need to be notified prior to setting up the protection.
- Main track (without crossing tracks with hoses).
 - For trains or locomotive(s).
 - All red flags will be in place as stated above on equipment to be fueled.
- Main track (crossing main track with hoses).
 - For trains or locomotive(s).
 - All red flags will be in place as stated above on equipment to be fueled.
 - If it is known that a main line track will need to be crossed with a fuel hose i.e. to fuel locomotives on the gravel main. The appropriate ARRC personnel will need to get protection from the train dispatcher. The train dispatcher will provide block protection so that no other equipment can go down the track that hose is going across.
 - Block protection will not be taken down unless the contractor has verbally confirmed that fueling has been complete and all hoses/equipment are no longer obstructing track to the appropriate ARRC personnel.
 - This person will notify the train dispatcher that protection is no longer needed.

Alaska Railroad Emergency Contact List

Anchorage TOFC Office	265 -2451 or 265-2431
Anchorage Heavy Equipment.....	265-2474
Anchorage Diesel Shop.....	265-2676
Anchorage Yard Office	265-2434
Don Freestone (Mechanical Anchorage).....	265-2557 office 242-6549 cell
Dennis Bouwens (Mechanical Anchorage).....	265-3913 office 250-3130 cell
Fairbanks TOFC Office.....	458-6045
Fairbanks Heavy Equipment.....	458-6046
Fairbanks Diesel Shop.....	458-6049
Fairbanks Yard Office.....	458-6022
Sean Mesloh (Mechanical Fairbanks).....	458-6038 office 328-9979 cell
Mike Ervin (Mechanical Fairbanks).....	458-6054 office 347-2930 cell
Chief Dispatcher	265-2421
Denny Bensel (Safety and Environmental).....	265-2265 office 887-3683 cell
Matt Kelzenberg (Industrial Hygiene).....	265-2384 office 748-2470 cell
ARR main emergency number, 24 Hr. response.....	265-2504