



Anchorage Locomotive Fueling/Service Facility

Project Scope

The Alaska Railroad (ARRC) is planning to replace an existing 1970s-era locomotive fueling delivery and control system in the Anchorage Yard. The need for this upgrade was identified in the 1999 Woodside Plan, a fundamental planning document for the Anchorage Yard. A subsequent 2009 Annual Performance Audit also recommended the system be replaced.

The plan envisions a new facility in the area east of the existing Diesel Shop, which would provide fueling, sand loading, inspection and minor maintenance of locomotives. The goal is to service up to six locomotives without re-spotting. Periodic inspection activities occur in the Diesel Shop.

This is a phased project. The first phase will include preliminary design followed by a first build phase to replace the existing fueling facility. Later phases would include locomotive servicing and inspection functions, such as adding lube oil, adding water, evacuating toilets, applying sand, servicing sanders, RA daily inspection, 15-day inspections, change brake shoes, support bearing inspection, traction motor and gearbox inspection, gear lube application, cab cleaning and supply, handbrake adjustment, windshield cleaning, headlight replacement, air hose replacement, windshield wiper replacement, failed computer screen replacement and other running repairs that can be accomplished within two hours.

Consideration is also being given to increasing the role of “wet hosing” service (remote fueling via a fueling truck that travels to the locomotive or equipment location to fuel on-site). Locomotives hold about 3,000 gallons of fuel.

Benefits

A new fueling system would significantly upgrade yard operations, with features such as:

- Improved pumping systems that are simplified for easier use and maintenance.
- Potential for computerized fuel metering systems for more accurate accounting.

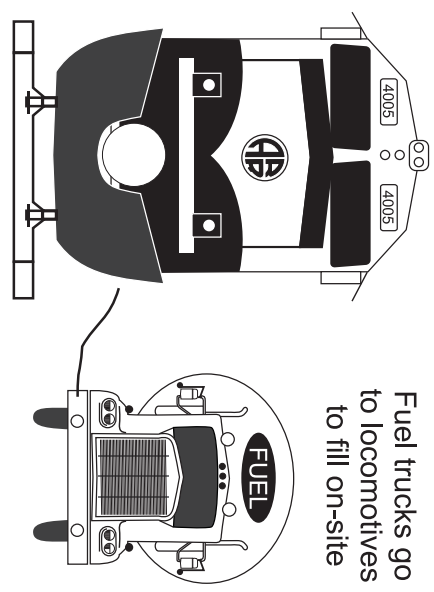
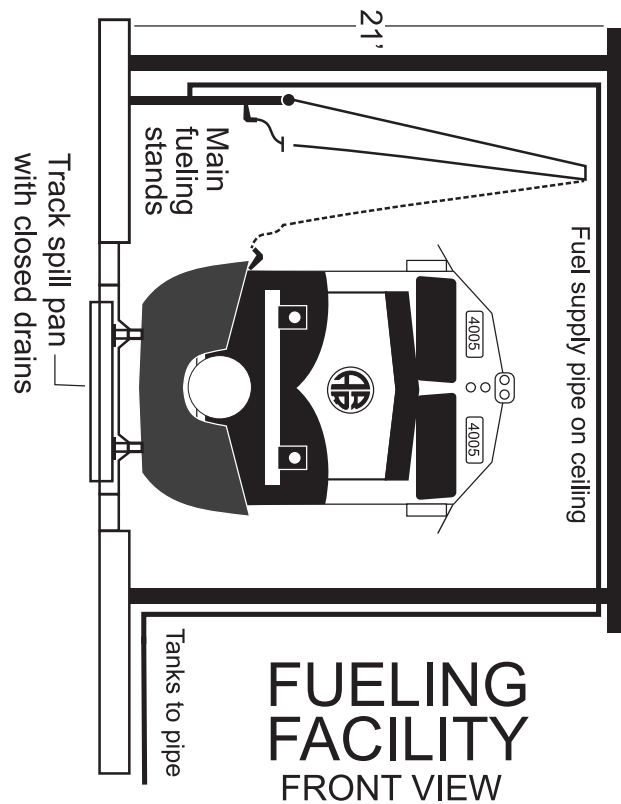
- Potential to combine a facility with direct locomotive fueling from a fuel truck, adding a measure of flexibility and efficiency.
- Improved fuel containment (spill prevention) systems.
- Enhanced safety features for employees.
- Enhanced fire protection systems.
- Replacement of old 70,000-gallon fuel storage tank with modern tank(s) (same size or smaller) and piping above ground for easier monitoring of possible leaks.
- Later phases of the project will add inspection and servicing facilities. This will greatly improve operating performance and employee working conditions.

Status

- During 2002, the Alaska Railroad began conceptual layout, identification of regulatory requirements, analysis of potential locations, and project cost estimates.
- PDC was awarded the preliminary design services in 2003 and preliminary design was delivered in September 2003 for review.
- The railroad refocused on this project in 2011, beginning final design, to include a cost/benefit analysis of a new stationary fueling facility and wet hosing, and the useful life of the old facility. Final design was completed in 2011; efforts to optimize the design continues.
- Operational test period for the remote fueling option was conducted in late 2011.

Project Costs

- Preliminary design budget \$200,000 in 2003. Additional budget of \$100,000 in 2010 and \$150,000 in 2011 to complete final design and engineering. Funding 100% ARRC.
- Estimated cost to construct conceptual facility is \$2 million. Funding not yet identified.



WET HOSE FUELING

