

Rail Escort Vehicle



Jointly Prepared and Presented by the U.S. Department of Energy and the U.S. Department of the Navy

The U.S. Navy's Naval Nuclear Propulsion Program (NNPP) transports classified, high-value U.S. Navy ship components by rail, including naval spent nuclear fuel (SNF). Meanwhile, the U.S. Department of Energy Office of Nuclear Energy (DOE NE) is preparing for future large-scale transport of commercial SNF from nuclear power plants using much of the same rail infrastructure and similar railcars. The current fleet of NNPP escort vehicles will soon reach the end of their service life. To leverage resources and share best practices, the NNPP and DOE NE jointly designed the new rail escort vehicle (REV).

Both programs require 24/7 monitoring and surveillance of their SNF shipments by specially trained security personnel on-board the transport train. At least one REV will be included in every train along with the railcars that carry SNF. The REV will transport the security personnel during these shipments, providing a comfortable living and working environment.

Rail Escort Vehicle General Characteristics

Manufacturer	Vigor Works LLC. - Portland, Oregon
Truck Design	Two Truck Sets (four axles per railcar) Amsted Rail 100 Ton Swing-Motion™ Custom Spring Package with Vertical Dampers 36" Wheel Diameter
Overall Length	68' 10-9/16" Over Pulling Faces
Overall Width	10' 4-25/32" Maximum
Clearance Diagram	Meets Plate E Equipment Diagram (AAR Standard S-2031)
Maximum Weight	185,000 Pounds



NNPP Rail Escort Vehicle
(Identified by "DODX" reporting mark)



DOE Rail Escort Vehicle
(Identified by "IDOX" reporting mark)

The REV is designed in accordance with Association of American Railroads (AAR) Standard S-2043 for trains used to transport SNF and high-level radioactive waste. The REV has undergone thorough structural and performance testing at both the manufacturer and testing facility in accordance with AAR Standard S-2043.

The NNPP will operate a fleet of five REV's which will provide enhanced security, communication, and surveillance capabilities compared to the existing NNPP escort vehicles. DOE's REV is available for use on future shipments or railcar testing, and DOE may procure additional REV's as it prepares for large-scale transportation of commercial SNF.

To maintain operational security, further details regarding REV capabilities and specifications are not publicly releasable.

Additional Resources:

For more information about the Naval Nuclear Propulsion Program, please visit:

www.energy.gov/nnsa/missions/powering-navy

For more information about the U.S. Department of Energy Office of Nuclear Energy and the DOE Railcar Projects, please visit:

www.energy.gov/ne/spent-fuel-and-waste-disposition