Idle Reduction

SP Rails System

Lithium Ion Battery system works in conjunction with an AESS to reduce fuel usage and cut GHG emissions by maximizing time between Locomotive restarts

- Powers auxiliary air compressor, reducing restarts due to a drop in main air reservoir pressure
- "Tops Off" the Lead Acid battery to delay restarts that may be caused by drain from parasitic loads
- Power the locomotive's auxiliary electrical loads, including HVAC - enhances crew comfort and decreases motivation to over-ride the AESS
- Depending on use case, can reduce idle time up to 50% leading to significant fuel cost savings
- Reduced restarts can extend service life of multiple components ranging from filters to starter motors

It's not practical to just turn off your Yard Locomotives when not in use. There are essential operational systems (Oil, Water, etc.) that need to be maintained, not to mention HVAC, Safety and Analytic systems. But leaving a Locomotive running around the clock creates a huge waste of fuel and is counter-productive to Sustainability initiatives.

An Automatic Engine Start/Stop (AESS) system can help address these issues by monitoring key operating parameters to periodically stop the engine when power isn't required, and restart when readings fall below pre-set thresholds. However, AESS systems are limited in the amount of idle time reduction they can provide and are a binary solution where all systems are either off or on.

The SP-Rails systems from ACS-RS works in tandem with an AESS to potentially further reduce idle time by up to 50%. Using a Lithium Ion system, proven in other demanding transportation applications, SP-Rails can continue to power some key operational systems and reduce multiple causes of an AESS restart. Additionally, other auxiliary systems stay operational. That includes the HVAC system, meaning your crew can stay comfortable and not have a reason to manually restart the engine to cool or heat the cab.

Ordering Information
System requirements vary based on Locomotive Model and Operating Conditions
Please contact ACS-RS for details on your application