



TECH NOTE

PEREGRINE TANKER TRACKING AND SECURITY How Does it Work?

At the load station, the RFID on the tanker is read by a receiver connected to the Peregrine security controller and validated as both a valid ID and secure (no hatch violation). When the driver opens the load station door, Peregrine “sees” the door open and initiates an alarm countdown of 30 seconds. When the driver inserts his valid Datakey into a receptacle on the front panel of the load station system, the alarm countdown sequence is terminated, and he or she is greeted by name. If both a valid (and secure) RFID and valid key is present, Peregrine sends the load amount to the PLC and “authorizes” the load by closing the “Batch ENABLE” relay. At this point the PLC takes over the batch loading process. The driver is prompted by the display to begin loading, and is given a chance to change the number of gallons (set by default to match the capacity of the trailer). After the batch process is complete, the system waits for all flow to stop before writing the load data to three places: the Datakey, an internal database, and a receipt for the driver.

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Batch Load Bill of Lading

Project: 9
Station: 8
Spring Tag: SLIV

Driver: algyte cabak
KeyID: A001, 1097949269
Date/Time Arrive: Thu Jan 1 00:00:00 1970
Vessel ID1: 2427202
Vessel ID2: 2427201
*****
Gallons Requested: 500
Gallons Loaded: 504
*****
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At the unload station, the driver repeats the process to begin unloading. Again, the hatch status and ID of the truck and/or trailer and the driver are verified by Peregrine before the unload can proceed. When the driver puts a key with load information into the key receptacle, the data from the Datakey is read and immediately written to the internal database for transfer to an enterprise database. Peregrine then sends the unload amount and the water quality test limits to the PLC. The PLC responds by closing the Batch ON relay. The unload process begins by first testing the water quality of a water sample using Eyasco's WQPOD. When the water quality test is complete, the results are sent back to Peregrine for checking against the preset limits (the PLC also displays the results). If the water quality results fall within the allowable limits, Peregrine closes the "Batch ENABLE" relay to let the PLC know that the process can proceed. If the water quality falls outside the acceptable limits, Peregrine enters a critical alarm state, and will not let the unload process proceed until the proper PIN is entered.

