



The expansion and upgrades to the Miami International Airport (MIA) runways, taxiways, and parking areas made it necessary to update the stormwater drainage system. The lead design engineer specified Highland Tank Oil/Water Separators to satisfy the MIA Airport's National Pollutant Discharge Elimination System (NPDES) permit. The EPA requires facilities that engage in regulated industrial activities to obtain NPDES permits before discharging to stormwater. The airport's daily operations and fueling facilities are specifically identified as industrial activities subject to the NPDES regulations.

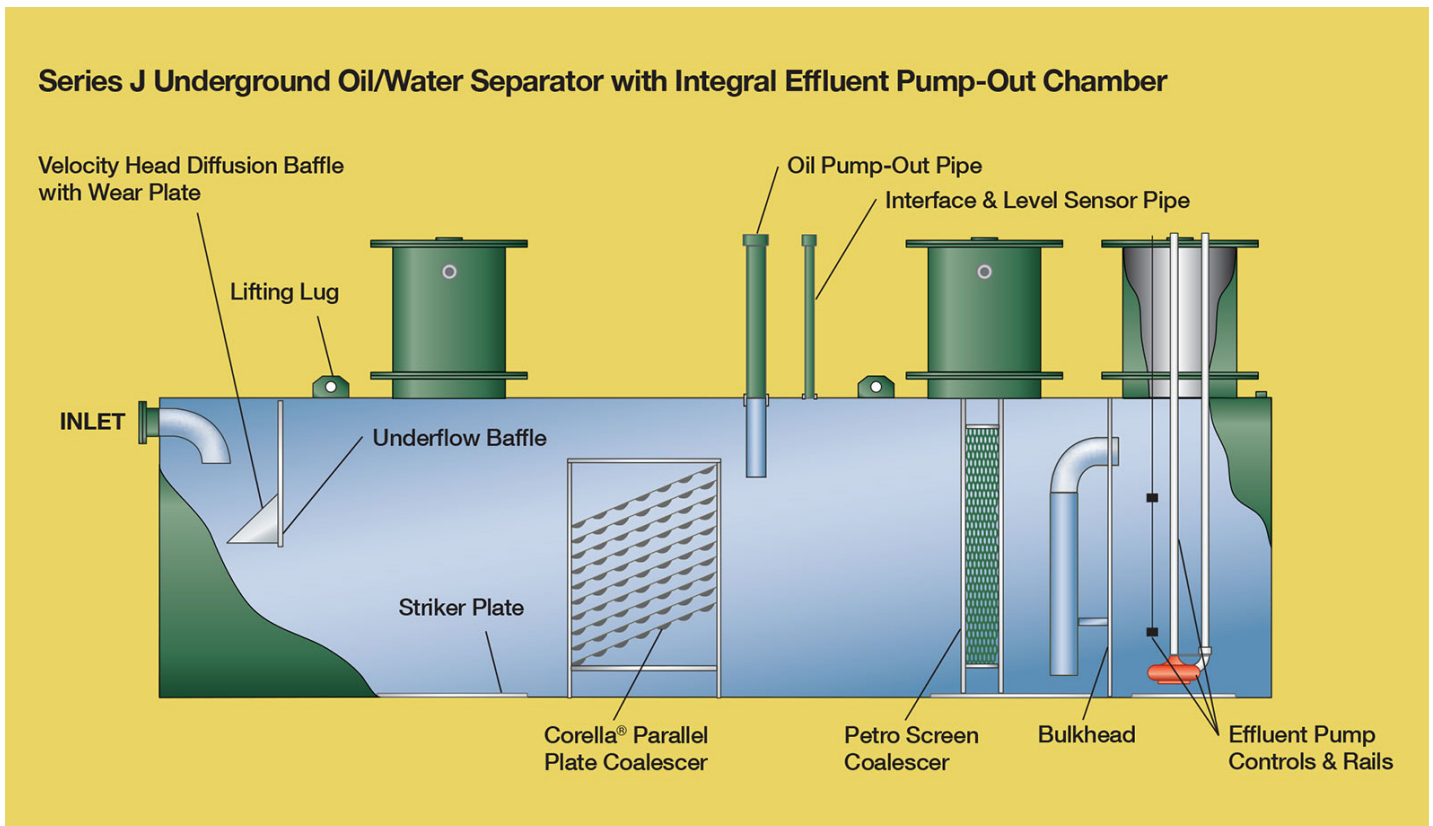


Highland Tank Model HTC-J-25,000 gallon Oil/Water Separator.

The engineers selected three Highland Tank oil/water separators for this project: 2 model HTC-J-20,000 gallon EZ Access® Oil/Water Separators and 1 model HTC-J-25,000 gallon EZ Access® Oil/Water Separator designed for the treatment of contaminated stormwater runoff. The first unit required on-site was the Model HTC-J-25,000 gallon Oil/Water Separator and shipped in the fall of 2019 (see above photo). This HTC-J-25,000 gallon Oil/Water Separator is being installed by the aircraft fueling area. It is designed to capture a large fuel spill from a tanker truck. This separator is rated to treat flows from 0-2,500 gallons per minute discharging with a qualified/certified effluent quality of 10 ppm of free oil and grease.

Highland Tank separators meet the Underwriter's Laboratories, Inc. SU2215 design, construction, and performance standards for engineered oil/water separators rated at 10 ppm oil and grease. Currently, code enforcement officials consider UL-SU2215 certification as being the preeminent national consensus standard for oil/water separator construction and performance. The separator is designed for gravity separation of free oils (hydrocarbons and other petroleum products) along with some settleable solids from the wastewater. The Highland Tank unit is designed with an oil/water separation chamber containing our high performance Corella® inclined parallel plate coalescer with removable corrugated plates. The unique plate design is sloped toward the sediment chamber and built in accordance with API-421 sizing calculations.

The parallel plates are flat on top and corrugated on the bottom to direct the flow of the separated oils to the surface of the tank and separated solids to the bottom. A sectionalized removable Petro-screen polypropylene impingement coalescer designed to intercept oil globules of 20 microns in diameter or larger is located at the effluent end of the oil/water separator tank for further treatment of the wastewater. The effluent flow is directed to our Series J compartment where it is pumped automatically to discharge. The Series J compartment is an optional integral effluent pump-out compartment with level controls to automatically operate the duplex pumping system.



The design engineer also specified all three Highland Tank Oil/Water Separators with double-wall type-1 construction (360 degree) steel secondary containment. The inner steel tanks are completely contained within the outer tanks and equipped with a leak detection system. The tanks were fabricated in strict accordance with Highland Tank's HighGuard® Corrosion Control System with a 30-year warranty and meeting UL standards. The Highland Tank Oil/Water Separators are supplied with a high oil level alarms (audio/visual) and an EZ Access® Manway design. The EZ Access® design utilizes a large rectangular manways located above the Series-J compartment allowing personnel to inspect and maintain the unit from grade level. Highland Tank's scope of supply also consisted of aircraft-rated grade level access covers to interface with all of our manways on the Oil/Water Separator.

By utilizing Highland Tank's wastewater treatment tanks, the design engineers have made every effort to ensure that stormwater discharge from the newly renovated facility will offer no threat to water quality. The separator equipment supplied meets all current federal, state, and local storm water regulations.

Call 814-893-5701 today or visit us at www.highlandtank.com for more information on wastewater treatment systems.

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