

EXPLORATION GROUND SYSTEMS

Rocket Propellant Loading

Ground support crews will load the agency's most powerful rocket, the **Space Launch System (SLS)**, to launch from historic **Pad 39B** at **NASA's Kennedy Space Center**.



More than **730,000 gallons** of liquid propellants travel through complex umbilical systems from the mobile launcher into the tanks of the SLS.

LOX

LIQUID OXYGEN
196,000
GALLONS

Interim Cryogenic Propulsion Stage Umbilical

Provides fuel, oxidizer, environmental control systems, pneumatics, and electrical connections to the interim cryogenic propulsion stage.

LH2

LIQUID HYDROGEN
537,000
GALLONS

Tail Service Mast Umbilical

Provides liquid oxygen and liquid hydrogen fluid lines to the SLS core stage propellant tanks.



00:00

At **T-0** umbilicals automatically release from the SLS and spring back to the mobile launcher.



Liquid Oxygen

Liquid Hydrogen

