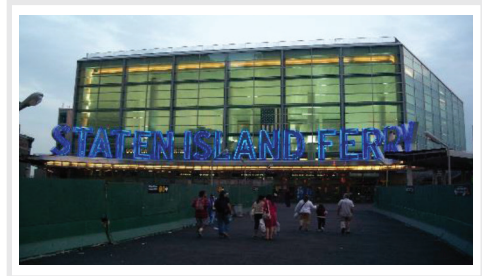
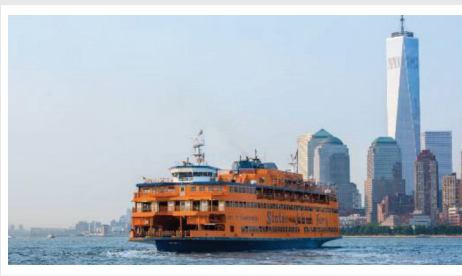


The Staten Island Ferry

Product: **Simsite Pump**
Material: **SIMSITE 300**
PUMP: 4 x 4 x 9 SER. 6000



Problem:

The salty waters of the Hudson River take a toll on metallic pumping equipment, and pump corrosion & erosion are one of the main concerns of the Ferry operators.

Results:

In the case of the Staten Island Ferries, the analysis of the pump system by SIMS engineers, presented an opportunity to utilize a Single- Suction Pump design versus the original Double-Suction Design of the metallic pumps. The upgrade to a Single Suction Design with a SIMSITE® Pump led to a more efficient, lighter and more reliable pump. The Simsite® Single-Suction Design promised a much higher reliability rate with less downtime, a better life-cycle and less than half the cost of spares. Additionally, the Single-Suction Design led to an Impeller design with Specific Speed, which is 1.4 times higher than the Specific Speed of the Double-Suction Impeller working at the same Operating Point. In our case, the Specific Speed of the Double-Suction Impeller was 981 and the corresponding Specific Speed of the Simsite® Single-Suction Impeller is (1.4×981) or 1378. It is a known fact that a Centrifugal Impeller of higher Specific Speed will provide higher efficiency than an Impeller of lower Specific Speed. The Pump efficiency gain will save the ship's fuel consumption, and bring the hydraulic noise down adding more comfort to the passengers and crew of the ship.

Company Location: Staten Island, NY –

Company Background: The Staten Island Ferry is one of the last remaining vestiges of an entire ferry system in New York City that transported people between Manhattan and its future boroughs long before any bridges were built. Today the Staten Island Ferry provides 22 million people a year (70,000 passengers a day not including weekend days) with ferry service between St. George on Staten Island and Whitehall Street in lower Manhattan. NYC DOT operates and maintains the nine vessel fleet.

The old design Metallic Double-Suction Pump



The new design of a SIMSITE® Single-Suction Pump

