



Award of Excellence

Permanent Canal Closures and Pumps Project



Consultant

Stantec

Owner

U.S. Army Corps of Engineers –
New Orleans District (USACE)

Client

PCCP Constructors – a Joint Venture

Category

Municipal and Civil Infrastructure

In response to Hurricane Katrina's devastation of New Orleans, the USACE embarked on a \$14.6 billion Hurricane and Storm Damage Risk Reduction System to repair the damage and improve the resiliency for the surrounding community. The final piece of this massive initiative was the \$690 million Permanent Canal Closures and Pumps design-build project with Stantec as the lead design engineer and architect.

Our team in Surrey, British Columbia, led the design quality for the project with over 450 Stantec staff from 55 offices collaborating with our design partners and the client. As part of an integrated team, Stantec designed a long-term flood damage risk reduction system to reduce the risks and damage of a 100-year storm event. The facility has three main functions. First, it provides drainage pumping and improved water evacuation for the City's three main outfall canals. This is accomplished with giant five-story high axial flow pumps and gearmotors. Second, the solution acts as a flood barrier from Lake Pontchartrain's storm surges, which can have wave heights of almost 14 feet. This is accomplished using 18-foot high surge gates. Third, the facility is a power station with enough generator power and fuel to run for five days.

When devising the solution, we considered every possible scenario and designed reliability and redundancy into every system to assure the station is operational through any natural disaster—an entire City is relying on it. The result is a drainage pumping system that can operate continuously and independently during catastrophic hurricane events.

For more information, please contact:

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