

Barge-Mounted Agitators & Maxcretes Used in Construction of New Orleans Hurricane Storm Surge Barrier

Shaw, Traylor, Kiewit, Manson, Massman, Boh Bros, and Weeks Marine New Orleans, LA

Job Report

At \$14.6 billion dollars, the new New Orleans area Hurricane and Storm Risk Reduction System is the largest Corp of Engineers job ever constructed in the United States. The system is designed to eliminate flooding similar to what occurred after Hurricane Katrina (100 year flood), and consists of constructing new or elevating over 350 miles of levees, floodwalls, surge barriers and navigable floodgates encircling the New Orleans area. Over 200 separate contracts were awarded to many of the nations largest civil contractors: Shaw, Traylor, Kiewit, Manson, Massman, Boh Bros and Weeks, to name just a few. As the construction of the surge barriers and floodgates were done over water, numerous contractors turned to the experts at Maxon to supply barge-mounted concrete transporters and remix surge hoppers to ensure rapid and consistent concrete placement.



Above: The IHNC Surge Barrier wall consists of 1,271 hollow pre-cast concrete piles, 66" diameter, 144' feet long, (see photo at right) driven into the river/lake floor. Behind each of the precast concrete piles, steel piles were driven at 34 degrees to vertical to provide additional support. Three barges, each with two (2) skid-mounted 10 cubic yard Maxon Agitators, then transported 20 yards at a time to the concrete placing barge, see photo above. The Agitators fed concrete directly to the trailer mounted concrete pump on the placing barge to fill each of the precast concrete piles.

Job Report: New Orleans Hurricane Storm Surge Barrier & Floodgates

Inner Harbor Navigational Canal (IHNC) Surge Barrier



Above: Maxon Agitors were fed from redi-mix trucks on shore. Each open-top Agitor was equipped with combination steel/roll back covers for fast loading and consistent quality concrete even in wet/hot conditions. The Agitors were powered with an independent diesel power pack allowing the Agitors to agitate the concrete while in transit for the 1+ mile trip to the placing site, ensuring quality concrete with every load.

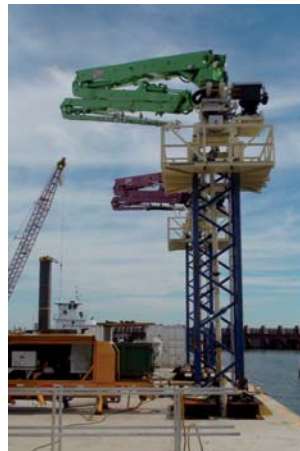


Each of the three barges included two 10 yard Agitors with elevated platform to allow a single person to operate both units from a single position. The platforms also allowed the Agitors to discharge directly into the barge mounted concrete trailer pumps (see photo left). While two Agitors were being loaded at shore, a second barge would be in transit to/from the placing site, while the third set of Agitors was feeding the trailer pump on the barge.

Navigable Flood Gates



The barrier wall also includes multiple navigable gates which allows boats to pass through but can be closed to protect New Orleans from the storm surge. To construct the gates, transport barges with up to 6 redi-mix trucks were used to shuttle concrete to the placing site. The redi-mix trucks discharged directly into the two Maxon Maxcrete Remix Surge Hoppers on the placing barge (above). The open top Maxcretres allowed for rapid discharge of the redi-mix trucks, while the Maxcretres bi-rotational agitator ensured consistent quality concrete with every yard. The Maxcretres fed two concrete trailer pumps and two tower-mounted placing booms (right).



Working round the clock, the Maxon Maxcretres ensured there was a constant flow of concrete for the pours that ranged up to 5,000 yd³.

(Note: Some of the photos above are courtesy of Team New Orleans, US Army Corp of Engineers)

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