



The Sewerage & Water Board

OF NEW ORLEANS

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April 19, 2021

Dear Mayor Cantrell, Honorable Members of the New Orleans City Council, and Orleans Parish Delegation:

This report is delivered in accordance which Revised Statute 33:4091, Section F, which states: *“In addition to the other requirements of this Section, the board shall send a report, by electronic mail, to the members of the Orleans Parish legislative delegation and the members of the governing authority of Orleans Parish detailing the pumping and electrical power of its facilities and the available manpower no later than twenty-four hours prior to a hurricane entering the Gulf of Mexico as determined by the National Weather Service and no later than forty eight hours after a flood watch or warning or thunderstorm watch or warning is issued by the National Weather Service for any area of Orleans Parish.”*

Between Monday, April 12 and Saturday, April 17, the National Weather Service issued numerous flood and severe thunderstorm warnings for Orleans Parish in response to a weather system that produced near-constant rain over the course of those six days. The following is a preliminary report detailing the manpower, pumping and electrical power of the Sewerage and Water Board’s (SWBNO) facilities throughout the event.

RAINFALL

Rainfall over the course of the week reached close to 10 inches total in most areas of the city. The rainfall intensity reached more than 6 inches per hour during some of the heaviest storms. The higher-intensity periods of rain combined with ground saturation produced some street and underpass flooding around the metro area at times, although the drainage system was able to keep pace and drain most of the pooled water during periods of lighter or no rain. The SWBNO operations team

monitored canal levels and pumped them down to create additional capacity during breaks in the heavy storms.

PUMPING AND POWER

Below is the status of SWBNO's pumping and power equipment at the outset of the rain event.

Drainage Pumps:

A total of 97 of 99 drainage pumps were available. The two pumps out of service are undergoing electrical repairs and should return to service in the near future. Two smaller constant duty pumps, typically used during dry weather, were offline for repairs.

DPS 7: #1 Constant Duty Pump out of service for motor repairs

DPS 5: #1 Constant Duty Pump out of service for pump repairs

DPS 14: #4 Pump out of service for gear box repairs

DPS 6: 1 Pump out of service pending electrical repairs

The pumping system operated as anticipated, with no major pump issues to report.

Underpass Stations:

All 27 underpass station pumps (UPS) were available and ready for use during the event.

Power:

For this event, Turbine 6, all 5 EMDs, and all frequency changers were available for use. Turbine 1 was offline for planned maintenance repairs at the outset of the week; it was successfully returned to service on Thursday afternoon and is currently online and available for use. It performed well during the remainder of the event.

Turbine 4 is still on schedule to return to service the first week of May. Turbine 5 is expected to be back online by early June. The addition of those turbines prior to hurricane season will add significant redundancy to the system.

The EMDs and all frequency changers were tested and available at the start of the event. During the event, the EMDs performed well and generated between 4 and 10 MW of power as needed. Over the course of the week, there were instances when EMDs tripped offline, but there was an onsite crew available specifically for monitoring those machines and any outages were brief. Turbine 6 and all frequency changers remained online and performed as expected for the duration of the event.

Unit	Frequency	Capacity in MW	Available
T1	25 Hz	Approx. 6 MW	6
T3*	25 Hz	Approx. 6 MW	0
T4	25 Hz	20 MW	0
T5	25 Hz	20 MW	0
Carrollton Frequency Changers 1&2	Converts 60 to 25Hz	8.5 MW	8.5
Station D Frequency Changers 3&4	Converts 60 to 25Hz	12 MW	12
West Bank Power Complex (Algiers Water Treatment Plant)	Converts 60 to 25Hz	2 MW	2
Five EMDs	25Hz	12.5 MW (total) 2.5 MW (each)	12.5
		Total 25 Hz:	41 MW
T6	60 Hz	15 MW	15 (60 Hz)

*T3 will be listed as inactive going forward, as SWBNO is in the process of decommissioning the turbine.

STAFFING

Of New Orleans' 24 drainage pumping stations, some are staffed, some run remotely, and some are staffed as circumstances dictate. For this event, all stations were staffed appropriately, and a consulting diesel mechanic was onsite to help monitor and troubleshoot EMD performance.