



The Sewerage & Water Board

**OF NEW
ORLEANS**

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November 30, 2020

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.”*

On Wednesday, November 25, the National Weather Service issued a flood advisory and a severe thunderstorm warning for Orleans Parish at 3:54 p.m. and 3:58, respectively. 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 totals for this event reached 3 – 4” in many areas of the city over the course of approximately one and a half hours. Rainfall intensity reached close to 8” per hour in some locations, particularly in the Lakeview and Mid-City neighborhoods. The intensity of rainfall over a relatively short period of time overwhelmed the drainage system and resulted in street and underpass flooding.

The rain intensity was exacerbated by a loss of redundancy in the power system, as detailed below, which slowed the pace at which the system could drain stormwater in some low-lying areas.

PUMPING AND POWER

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

Drainage Pumps:

In sum, 98 of 99 drainage pumps were available. One pump was out of service for repairs at Drainage Pumping Station (DPS) 14. Two 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 Drainage Pump out of service for gear box repairs

Underpass Stations:

Twenty-six out of 27 underpass station pumps (UPS) were available at the outset of the event.

UPS Hospital: 1 of 2 pumps out for maintenance/rehabilitation, but a temporary stand-by pump set up in its place

UPS Press: 1 of 3 pumps out for maintenance/rehabilitation

Power:

For this event, three of five turbines were not available for use. Turbine 5 is undergoing repairs for damage resulting from last December’s explosion and is expected to return to service in mid-2021. Turbine 4 is undergoing repairs due to a mechanical issue that arose during routine use earlier this month. It is expected to be back online in December. Turbine 3 is out of service indefinitely, due to condenser damage suffered during Hurricane Zeta.

All five EMDs and all frequency changers were tested and available prior to the start of the event. During the event, numerous EMDs tripped offline. S&WB operators were able to troubleshoot the issues and return them to service as needed during the event. All five have since been returned to service. Turbines 1 and 6 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 25Hz	60 to 8.5 MW	8.5
Station D Frequency Changers 3&4	Converts 25Hz	60 to 12 MW	12
Five EMDs	25Hz	12.5 MW (total) 2.5 MW (each)	12.5
		Total 25 Hz:	38 MW
T6	60 Hz	15 MW	15 (60 Hz)

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.