The Sewerage & Water Board

OF NEW ORLEANS

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May 14, 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 Sunday, May 9 and Wednesday May 12, the National Weather Service issued numerous flood and severe thunderstorm warnings for Orleans Parish in response to several weather systems that produced rain, severe thunderstorms, and a possible tornado during this time period. 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

Recorded rainfall over the course of the week averaged over 4 inches across the city, with highest rainfall reaching between 6 and 7 inches in some areas. 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. 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 in the near term**
DPS 6:	**I Pump out of service pending electrical repairs (return to service by the end of the month)**

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 1, Turbine 6, all 5 EMDs, and all frequency changers were available for use. Turbine 1 and frequency changers remained online and performed as expected for the duration of the event. Use of Turbine 6 was not required during the rain events.

Turbine 4 was returned to service the evening of May 11 and was utilized during the remainder of the event. The unit experienced an electrical trip event around in the early morning of Wednesday May 12, and it was returned to service about 2.5 hours later. There were no impacts to pumping capacity, as the EMDs were available and brought online during this time. Turbine 4 remained online throughout the remainder of the storm event.

The EMDs were utilized at various points through the event. They performed well and generated 10 MW of power to be used as needed. There was an onsite crew available specifically for monitoring those machines, and no trip events were experienced.

Turbine 5 is expected to be back online by early June. The addition of this turbine prior to hurricane season will add significant redundancy to the system.

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	18
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:	**59 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.

**Turbine 4 was returned to service in the evening of Tuesday, May 11. It is currently undergoing final testing and commissioning.

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 mechanics were onsite to help monitor and troubleshoot EMD performance as needed.