

Powering Through Historic Flooding

Water and electricity do not mix. Businesses in Dane County, Wisconsin dealt with the harsh reality after the area was drenched with historic rainfall in August 2018. Damage from the extreme flooding topped \$154 million. County officials estimated 1,544 residences were impacted and the city of Middleton estimated \$35 million in damages to commercial properties.

One commercial property in Middleton was reminded of the storm and its after-effects for several months. The building is shared by several businesses, including an FBI field office. Due to the heavy rains, the below-ground parking lot completely flooded, submerging many vehicles. The electrical room was also in the parking lot and was ten feet underwater.

Once the flood waters went down, the damage was clear. The Power Manager would need to be replaced as well as the main service panel. In 2008, Wolter's Power Systems Group installed a Generac Modular Power System (MPS) to provide backup power to the entire building in the case of a power outage. The three 500 kW diesel generators were not in the impacted zone, but the 12 transfer switches were and would all need to be replaced.

Although updating the damaged equipment was important, there was a critical, immediate need for power. "With an FBI office there, I can only imagine what information would be lost," said Jason Lelewicz, Wolter. "Having the power to



access their files and databases is important and emphasized the importance of returning power to the facility as quickly as possible." With the main utility feed not operational, an electrical contractor had to temporarily wire the building to bypass the damaged transfer switches so a backup generator could power the building. The temporary solution needed to power the building 24/7 for nearly three months until repairs could be made.

In less than 24 hours after the power went out, the generators were up and running. To keep the units operating continuously for several months, general maintenance needed to be performed to ensure the generators kept functioning as they were designed. "To keep the generators up and running, the units needed to be re-fueled every other day," said Lelewicz. "In addition to re-fueling, the units were also serviced every week and a half. That servicing included changing the oil and the filters on all the generators."

Wolter said refueling or servicing the generators would have been more difficult, and expensive had the units not been in an MPS. With Generac's MPS, a single unit can be taken out of service for fueling or servicing while the other units remain available.

"They were able to take one unit down for service while the others continued to provide power into the building," said Lelewicz. "If this was a single-engine generator, the building would have been out of power while the oil and filters were being changed." Lelewicz also said to keep power continuous at the facility; they would have had to rent a mobile generator, costing the customer even more money.

