Hurricane Florence | Report #5

REPORT TIME & DATE: 9:00 AM EDT | Saturday, September 15, 2018
INCIDENT START DATE: Thursday, September 13, 2018
PRIMARY LOCATION(S): North Carolina & South Carolina
REPORT DISTRIBUTION: Public

EXECUTIVE SUMMARY
As of 8:00 AM EDT, Tropical Storm Florence was 35 miles west of Myrtle Beach, South Carolina and 45 miles, moving west at 2 MPH, with maximum sustained winds of 50 MPH. Florence made landfall at 7:15 AM EDT near Wrightsville Beach, North Carolina. A slow westward motion is expected to continue through today. A turn toward the west-northwest and northwest is expected on Sunday. Florence is forecast to turn northward through the Ohio Valley by Monday.

Electricity Sector Summary
• The following outages have been reported at as of 7:00 AM:
  o North Carolina: 845,952 customer outages (17%) – Increase of 40% since last report
  o South Carolina: 167,476 customer outages (6.6%) – Increase of 109% since last report
• Crews in the impacted area have begun to perform limited/intermittent damage assessments and restorations as the weather in the peripheral areas has allowed.
• Restoration efforts will be limited until the storm has passed and weather conditions permit. Crews are unable to operate in heavily flooded areas or when wind speeds are over 30 MPH.

Oil & Natural Gas Sector Summary
• Ports in Virginia and Maryland are open. Ports in North and South Carolina remain closed and the Port of Savannah, Georgia is open with restrictions.
• There are localized retail fuel station outages due to increased demand from evacuees.
  o Overall gasoline inventories across the region are at or above the 5-year range.
  o States are working closely with industry to expedite resupply shipments to impacted areas.
  o Resupply shipments will be suspended as the storm passes and will recommence once conditions permit.
• A regional hour-of-service waiver is in effect for the impacted area and surrounding states.
• Fuel blend waivers are in effect for North Carolina, South Carolina, Georgia, and southern Virginia.
As of 8:00 AM EDT, Tropical Storm Florence was 35 miles west of Myrtle Beach, South Carolina and 45 miles, moving west at 2 MPH, with maximum sustained winds of 50 MPH. Tropical storm-force winds extend outward from the center up to 175 miles. A slow westward motion is expected to continue through today. A turn toward the west-northwest and northwest is expected on Sunday. Florence is forecast to turn northward through the Ohio Valley by Monday.

Florence is forecast to produce an additional 10 to 15 inches of rainfall across southern and central portions of North Carolina, into far northeastern South Carolina, with storm total of 30 to 40 inches along coastal areas of North Carolina, south of Cape Hatteras. Florence is expected to produce 5 to 10 inches across other portions of northern South Carolina, western North Carolina and southwest Virginia. Storm surge of 2 to 5 feet is still possible within the tropical storm warning area. A tropical storm warning remains in effect from Edisto Beach, South Carolina to the Ocracoke Inlet, North Carolina and the Pamlico Sound. Flood and flash flood warnings are also in effect throughout the impacted area.
ELECTRICITY SECTOR

POWER OUTAGES

Outage Map (as of 8:00 AM EDT)

<table>
<thead>
<tr>
<th>Impacted State</th>
<th>Current Confirmed Customer Outages</th>
<th>Percent of Total Customers in State without Power</th>
<th>24-Hour Peak Customer Outages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgia</td>
<td>118</td>
<td>&lt;1%</td>
<td>5,008</td>
</tr>
<tr>
<td>North Carolina</td>
<td>845,952</td>
<td>17%</td>
<td>845,952</td>
</tr>
<tr>
<td>South Carolina</td>
<td>167,476</td>
<td>6.6%</td>
<td>167,476</td>
</tr>
<tr>
<td>Virginia</td>
<td>2,958</td>
<td>&lt;1%</td>
<td>7,420</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,016,504</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*There is no sum of the Peak Customer Outage column because peaks for individual utilities occur at different times; a total would not reflect peak outages.*
ELECTRICITY IMPACTS & RESTORATION EFFORTS

- Crews in the impacted area have begun to perform limited/intermittent damage assessments and restorations as the weather in the peripheral areas has allowed.
- Restoration efforts and damage assessments will be limited until the storm has passed and weather conditions permit. Crews are unable to operate in heavily flooded areas and when wind speeds are greater than 30 MPH.

GEORGIA

| Customer Outages | ↓ 96% since Sep 14, 4:00 PM EDT | 5,008 24-hr Peak Outages |

NORTH CAROLINA

| Customer Outages | ↑ 40% since Sep 14, 4:00 PM EDT | 845,952 24-hr Peak Outages |

- **Significantly Impacted Utilities**
  - Duke Energy (Carolinas): 489,960
  - Brunswick Electric Membership Corporation: 82,911
  - Jones Onslow Electric Membership: 52,360
  - Lumbee River Electric Membership: 33,283

SOUTH CAROLINA

| Customer Outages | ↑ 109% since Sep 14, 4:00 PM EDT | 167,476 24-hr Peak Outages |

- **Significantly Impacted Utilities**
  - Duke Energy (Carolinas): 56,136
  - Santee Cooper: 47,030

VIRGINIA

| Customer Outages | ↑ 29% since Sep 14, 4:00 PM EDT | 7,420 24-hr Peak Outages |

BACKGROUND AND PREPARATIONS

- The potentially affected area is served by several utilities, including investor owned utilities, municipal utilities, and cooperative utilities. The three associations that represent these utilities and manage the mutual assistance networks, Edition Electric Institute (EEI), American Public Power Association (APPA), and the National Rural Electric Cooperative Association (NRECA), have been in regular contact with DOE and the potentially affected entities.
- Over 40,000 workers from 17 states have been mobilized to support restoration efforts. Crews, mutual assistance crews, and equipment have been pre-positioned outside the potentially impacted areas.
  - This workforce includes crews and support personnel from the potentially impacted companies, contractor resources, and additional workers from mutual assistance partners outside the expected impact area. Additional electric companies outside of the storm zone continue to monitor and assess the situation and are ready to provide assistance.
- Per Nuclear Regulatory Commission procedures, nuclear power plants will shut down two hours prior to forecast arrival of hurricane-force winds.
PETROLEUM SECTOR

PRODUCT PIPELINES
- Pipeline operators are following storm procedures.
- No issues have been reported at this time.

PORTS
- The USCG has set the following conditions for Southeast ports.

<table>
<thead>
<tr>
<th>Port Sector</th>
<th>Port</th>
<th>Status</th>
<th>Date Stamp</th>
<th>2016 Inbound Products (b/d)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maryland NCR</td>
<td>Baltimore, MD</td>
<td>Port Condition Normal. Open without restrictions.</td>
<td>09/15</td>
<td>29,000**</td>
</tr>
<tr>
<td>Hampton Roads</td>
<td>Norfolk, VA</td>
<td>Port Condition Normal. Open without restrictions.</td>
<td>09/15</td>
<td>2,000</td>
</tr>
<tr>
<td></td>
<td>Newport News, VA</td>
<td>Port Condition Normal. Open without restrictions.</td>
<td>09/15</td>
<td>7,000</td>
</tr>
<tr>
<td>North Carolina</td>
<td>Wilmington, NC</td>
<td>Port Condition Zulu.</td>
<td>09/14</td>
<td>6,000</td>
</tr>
<tr>
<td>Charleston</td>
<td>Charleston, SC</td>
<td>Port Condition Zulu. Closed. Vessel operations possible on 09/16 depending on storm conditions.</td>
<td>09/12</td>
<td>22,000</td>
</tr>
<tr>
<td>Savannah</td>
<td>Savannah, GA</td>
<td>Port Condition Yankee. Open with restrictions.</td>
<td>09/13</td>
<td>15,000</td>
</tr>
</tbody>
</table>

*Transportation fuels only (gasoline, distillate, and jet fuel)
**The Port of Baltimore also had 11,000 b/d of petroleum products shipped outbound in 2016.
Source: U.S. Coast Guard [Homeport], U.S. Army Corp of Engineers, EIA Company Level Imports
PETROLEUM REFINERIES
- There are no refineries in the immediate impact zone of Hurricane Florence (NC, SC, GA, VA).

FUEL STOCKS
- For the week ending on September 7, the Lower Atlantic Region (WV, VA, NC, SC, GA, & FL) had 27.9 million barrels of total gasoline stocks, or 10% higher than the 5-year average for this time of year, according to the U.S. Energy Information Administration (EIA). Also, the Lower Atlantic Region had 12.5 million barrels of total distillate stocks, or 5% lower than the 5-year average for this time of year. For these fuels, inventory levels include volumes at refineries, bulk terminals and blenders, and in pipelines. EIA does not survey inventories held at retail stations.

RETAIL FUEL STATIONS
- There are localized retail fuel station outages due to increased demand from evacuees. States are working closely with industry to expedite resupply shipments to impacted areas.
### EMERGENCY DECLARATIONS & WAIVERS

**EMERGENCY DECLARATIONS**

To provide vital supplies and transportation services to a disaster area in the United States, emergency declarations may be issued by the President, Governors of States, or Federal Motor Carrier Safety Administration (FMCSA). These declarations trigger the temporary suspension of certain Federal safety regulations, including Hours of Service, for motor carriers and drivers engaged in specific aspects of the emergency relief effort. See [49 CFR 390.23](#) for the actual emergency regulation.

**State Emergency Declarations and HOS Waivers as of 7:30 AM EST 09/14/2018**

<table>
<thead>
<tr>
<th>State</th>
<th>Details</th>
<th>Effective Dates</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE, DC, FL, GA, MD, NJ, NY, NC, PA, SC, VA, WV</td>
<td>FMCSA Regional Declaration of Emergency</td>
<td>09/10 - 10/10</td>
<td>Active</td>
</tr>
<tr>
<td>North Carolina</td>
<td>State of Emergency Declaration</td>
<td>09/07 - Until Rescinded</td>
<td>Active</td>
</tr>
<tr>
<td>South Carolina</td>
<td>State of Emergency Declaration</td>
<td>09/08 - Until Rescinded</td>
<td>Active</td>
</tr>
<tr>
<td>Virginia</td>
<td>State of Emergency Declaration</td>
<td>09/08 - 10/10</td>
<td>Active</td>
</tr>
<tr>
<td>Maryland</td>
<td>State of Emergency Declaration</td>
<td>09/10 - Until Rescinded</td>
<td>Active</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>State of Emergency Declaration</td>
<td>09/11 - 09/13</td>
<td>Rescinded</td>
</tr>
<tr>
<td>Kentucky</td>
<td>State of Emergency Declaration</td>
<td>09/11 - 10/11</td>
<td>Active</td>
</tr>
<tr>
<td>Tennessee</td>
<td>State of Emergency Declaration</td>
<td>09/11 - 10/11</td>
<td>Active</td>
</tr>
<tr>
<td>Georgia</td>
<td>State of Emergency Declaration</td>
<td>09/12 - 09/19</td>
<td>Active</td>
</tr>
</tbody>
</table>

Sources: [U.S. Department of Transportation](#); Governor Office Websites

**FUEL WAIVERS**

The Environmental Protection Agency (EPA), working with the Department of Energy (DOE), responds quickly to address fuel supply disruptions caused by hurricanes or other natural disasters by issuing emergency waivers of certain fuel standards in affected areas. The table below lists fuel-related waivers issued by the EPA:

**Fuel Waivers as of 7:30 AM EST 09/14/2018**

<table>
<thead>
<tr>
<th>State(s)</th>
<th>Waiver</th>
<th>Effective Dates</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Carolina, South Carolina</td>
<td>RVP requirements</td>
<td>09/11 - 09/15</td>
<td>Active</td>
</tr>
<tr>
<td>North Carolina, South Carolina</td>
<td>RFG comingling regulations</td>
<td>09/11 - 10/01</td>
<td>Active</td>
</tr>
<tr>
<td>Georgia, parts of Virginia</td>
<td>RVP requirements</td>
<td>09/12 - 09/15</td>
<td>Active</td>
</tr>
<tr>
<td>Georgia, parts of Virginia</td>
<td>RVP requirements; amended</td>
<td>09/13 - 09/15</td>
<td>Active</td>
</tr>
<tr>
<td>Georgia, parts of Virginia</td>
<td>RFG comingling regulations</td>
<td>09/12 - 09/30</td>
<td>Active</td>
</tr>
<tr>
<td>Southern Virginia</td>
<td>RFG requirements</td>
<td>09/12 - 09/30</td>
<td>Active</td>
</tr>
</tbody>
</table>

Sources: [U.S. Environmental Protection Agency](#); State Governments
In order to minimize or prevent the disruption of an adequate supply of gasoline for evacuees in the designated areas, the EPA has issued temporary waivers of:

- **Reid vapor pressure (RVP) requirements** at 40 C.F.R. § 80.27, thus allowing regulated parties to produce, sell or distribute winter gasoline (including gasoline blendstocks for oxygenate blending (BOBs)) with higher RVP than normally allowed during the high ozone season. On September 13, EPA issued an emergency waiver that amended the September 12 waiver to further increase the allowable RVP for conventional gasoline in Georgia. These waivers are effective through September 15, 2018, which is the end of the high ozone season.

- **Reformulated gasoline (RFG) regulations** at 40 C.F.R. § 80.78(a)(7), thus allowing the commingling of any RBOB with any other gasoline, blendstock, or oxygenate in the designated areas.

- **Reformulated gasoline requirements** in Southern Virginia RFG areas, thus allowing regulated parties to produce, sell or distribute conventional winter gasoline instead of RFG in those areas.

**OTHER FEDERAL WAIVERS**

- On September 13, PHMSA issued an Emergency Stay of Enforcement for pipeline and LNG facility operators affected by Hurricane Florence. Under the stay, PHMSA does not intend to take enforcement action relating to operators’ temporary noncompliance with qualification requirements found in 49 C.F.R. §§ 192.801–192.809 and 195.501–195.509, or pre-employment and random drug testing requirements found in 49 C.F.R. § 199.105(a), (c) arising from the use of personnel for pipeline activities related to response and recovery. The stay will remain in effect until October 28, unless PHMSA determines an extension is required.

- On September 12, PHMSA issued a Waiver of the Hazardous Materials Regulations (HMR, 49 C.F.R. Parts 171-180) to allow the EPA and USCG to conduct their ESF #10 response activities to safely remove, transport, and dispose of hazardous materials. Persons conducting operations under the direction of EPA Regions 3 or 4 or USCG Fifth or Seventh Districts within the Hurricane Florence emergency areas of South Carolina, North Carolina, and Virginia are authorized to offer and transport non-radioactive hazardous materials under alternative safety requirements imposed by EPA Regions 3 or 4 or USCG Fifth or Seventh Districts when compliance with the HMR is not practicable. Under this Waiver Order, non-radioactive hazardous materials may be transported to staging areas within 50 miles of the point of origin. Further transportation of the hazardous materials from staging areas must be in full compliance with the HMR. This Waiver Order will remain in effect for 30 days from the date of issuance.