Consideration for Hurricane Risks during the COVID-19 Pandemic

The Institute for Public Awareness and Understanding of Hazardous Technology Risks
(HazTechRisk.Org)

1 April 2020

Background (added November 2026). Ernie Kee is a principal of the Institute for Public Awareness and Understanding of Hazardous Technology Risks (HazTechRisk.Org), with Martin Wortman and Pranav Kannan. This short note was written in early April 2020, two months before the start of the Atlantic hurricane season, while U.S. communities were only beginning to respond to COVID-19. Drawing on how nuclear plants on the Gulf Coast prepare for hurricanes, it urged emergency planners to prepare evacuation plans that would not spread the virus. The text below has been edited for clarity; the recommendation is unchanged.

In technical risk assessment, the term *multi-hazard* describes the possibility that one hazard, such as a hurricane or an earthquake, triggers another, such as flooding, fire, or the loss of the power needed to keep production facilities safe. The COVID-19 pandemic may create exactly this kind of multi-hazard risk. A hurricane coming ashore in a coastal community could knock out hospital facilities, or displace residents in an evacuation that speeds the spread of the virus. A hurricane or tornado could be even more damaging now that the pandemic has required temporary hospital tents, which may not stand up to high winds. And the hurricane season may well begin before the pandemic is over.

The lessons learned after Hurricane Katrina could help prepare for such a combined event, but they will not all carry over. Evacuating residents by bus, for example, would make it nearly impossible to keep people six feet apart or to avoid crowds at pickup points, and the evacuation itself could spread the virus almost unchecked.

Evacuation plans that account for the pandemic should therefore be in place before the hurricane season begins. The staged response used at nuclear power plants could be a good model. Nuclear plants watch hurricane tracks closely and step up their protective actions as a storm approaches: first securing objects that high winds could turn into missiles, then bringing emergency response staff to the site and checking supplies, and finally shutting the plant down if the storm is expected to make landfall nearby.

By anticipating the effect of hurricanes during the pandemic, and putting protective measures in place well before the season starts, communities could substantially reduce this multi-hazard risk.