

NEWS FROM BEYOND NUCLEAR

For immediate release

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Hurricanes expose dangerous flaws in nuclear emergency evacuation plans

TAKOMA PARK, MD, September 9, 2017 -- Two Florida nuclear power plants potentially in the path of Hurricane Irma could exacerbate what is already predicted to become a major disaster for the state because nuclear emergency evacuation plans are unrealistic and likely unworkable in real life conditions, warned Beyond Nuclear, a national anti-nuclear watchdog organization.

The nuclear emergency plans, the group said, do not account for the destruction already caused by mega-storm conditions that could see emergency workers unable to cope with an added radiological disaster.

"Hurricanes like Irma and Harvey serve as an ominous reminder that the continued existence of nuclear power plants means the risk of an accident that could lead to widespread exposure to radiation and to radioactive contamination that could last decades or longer," said Paul Gunter, Director of the Reactor Oversight Project at Beyond Nuclear.

"This would come on top of the terrible devastation already caused by the storm itself," he added. "Much of the radiological emergency plans presently on paper would never work in reality."

Emergency workers could already be evacuated and unavailable for a potential nuclear emergency, as happened around the South Texas Project twin-reactor nuclear plant during Hurricane Harvey. Evacuation routes around the plant were also flooded. If a nuclear emergency had occurred there, nuclear plant workers would have been left to fend for themselves.

Beyond Nuclear had called for the precautionary "cold shutdown" of STP during Hurricane Harvey which brought unprecedented flooding to the Texas region, a warning the owners chose to ignore, gambling public safety by keeping the reactors running at 100%.

The two Florida nuclear plants, both owned by Florida Power and Light (FPL) are Turkey Point 3 & 4 located 25 miles south of Miami in Homestead, and St. Lucie 1 and 2, perched on low-lying Hutchinson Island south of Vero Beach. To its credit, FPL has said it will close both nuclear plants well in advance of hurricane force winds and storm surge.

But even should the hurricane by-pass the nuclear plants this time, such mega-storms are likely to become more frequent as climate change worsens. A nuclear plant cannot be abandoned by its workforce during a mandatory evacuation, forcing workers to potentially sacrifice their safety and even their lives to prevent a meltdown.

During the 2011 Fukushima nuclear disaster in Japan, triggered by a massive earthquake and tsunami, then prime minister, Naoto Kan, insisted that the nuclear plant workforce stay on site. If they had evacuated, the plants would have rapidly suffered major meltdowns, contaminating the neighboring Fukushima-Daiini nuclear site and forcing workers to abandon that site, resulting in meltdowns there as well. Kan insisted that Fukushima workers sacrifice their own safety. "Otherwise," he reflected later, "we were looking at the evacuation of Tokyo and Japan would have been finished."

The Fukushima nuclear disaster also further hampered relief work as emergency responders could not rescue earthquake and tsunami victims trapped in highly radioactive zones caused by the multiple reactor meltdowns and explosions.

Although FPL has said it will shut down its nuclear plants if they end up in Irma's path, nuclear power stations are not passively safe following shutdown and still require power for the constant cooling of the intensely hot and radioactive fuel to prevent damage to fuel cores and the irradiated "spent" fuel submerged in onsite storage ponds.

"Florida's nuclear power plants are designed to robust standards based on a 'probable maximum hurricane' every 100 years," Gunter continued.

"But what becomes of those odds when record breaking super hurricanes start coming month after month?

"Irma is a very powerful storm that reminds us of the danger inherent in nuclear power and how essential emergency services must still remain on the ready in the event of a radiological release from Florida's nuclear plants," Gunter noted.

Under a nuclear emergency at Turkey Point or St. Lucie, those still in the area and in danger of exposure to radiation, would be expected to go to designated radiological "reception centers" where sheltering, decontamination and treatment for radiation exposure would to be offered. For Turkey Point, one reception center is in Miami, 23 miles to the north, and the other in Key Largo, 34 miles away to the south.

"These would clearly be unrealistic options if Irma strikes Turkey Point as the present force of the hurricane would likely eliminate Key Largo as an option and Miami possibly, too," said Gunter. "Roads would be impassible from debris and flooding, making these centers unreachable," Gunter continued. "This means sheltering in place, possibly in dangerous conditions."

The Florida reception centers are designated for post-nuclear accident distribution of potassium iodide (KI). KI is administered for safe and effective protection of the thyroid from exposure to cancer-causing radioactive iodine-131, one of the fastest traveling radioactive gases released during a severe accident at a nuclear plant.

Beyond Nuclear supports the <u>American Thyroid Association recommendation</u> to pre-distribute KI directly to populations within the 50-mile radius of nuclear power stations. In this way, vulnerable populations can take KI as soon as notified, especially if reception centers are inaccessible or inoperable.

"Not only should nuclear plants be shut down before extreme weather conditions hit, as FPL has said they will, inherently dangerous atomic power should be phased out permanently," Gunter said.

"Nuclear power plants pose too big a risk under increasingly violent climate conditions," Gunter said. "In times of extreme weather conditions, natural disaster and national security crisis, nuclear power will always be more of a liability than an asset," he concluded.

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Details about the Beyond Nuclear campaign for mandatory distribution of KI to reactor communities can be found here: http://www.beyondnuclear.org/got-ki

The cascading problems that occurred at Turkey Point during Hurricane Andrew in 1992, can be found here: http://www.beyondnuclear.org/home/2017/9/7/hurricane-irma-bearing-down-on-fl-reactors-hurricane-harvey.html

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Beyond Nuclear aims to educate and activate the public about the connections between nuclear power and nuclear weapons and the need to abandon both to safeguard our future. Beyond Nuclear advocates for an energy future that is sustainable, benign and democratic. The Beyond Nuclear team works with diverse partners and allies to provide the public, government officials, and the media with the critical information necessary to move humanity toward a world beyond nuclear. Beyond Nuclear: 6930 Carroll Avenue, Suite 400, Takoma Park, MD 20912. linfo@beyondnuclear.org. www.beyondnuclear.org.