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Hurricane Preparation Fuels Guide

The Atlantic Hurricane Season typically runs from June through the end of November. If you work for any kind of municipal government or other large entity, you probably have a contingency plan in place dictating the actions to be taken to prepare for the arrival of a hurricane or large storm system. Small and medium businesses, on the other hand, may not. So we'd like to offer some supplemental helpful suggestions related to the fuels that are part of your emergency plan.

Reasons For Concern

Even though most people and entities think they're adequately prepared, there are reasons for concern that they may not be as prepared as they want to think:

TIME - It's clear that you don't get much warning with most hurricanes, which is why they can catch even the best fuel administrators off-guard. The State of Florida estimated a 12-hour notice is the best advance that people can expect, which is a troubling contrast to the fact that, even in a prepared state like Florida, some areas take 28 hours or more to execute tasks like evacuations.

FREQUENCY – Hurricane tracks of past storms show that most areas of coastal states can expect to be exposed to a hurricane at least every 25 years. And we all know what happened in 2004 and 2005.

LACK OF REAL PREPARATION – Over 80% of U.S. localities do have a formal disaster plan on-hand. But an audit by the International City Management Association concluded that local governments continue to be surprised despite this, and often fail to improve their plans even after a disaster has been experienced in there are. Why do they fail when they should know better? Most likely, a combination of a lack of relevant experience with the issue of disaster response, a failure to learn from experience, a lack of commitment to doing the work (which may not always have an immediate and visible payoff), and lastly, doing the wrong kind of planning (which may target the wrong areas).

The wrong kind of planning (or none at all) can be a death blow for businesses. **Experience shows that for businesses who have to spend 30 days or more recovering from a hurricane or disaster, 80% of them go bankrupt.** What is a common thread among these kind of businesses? They didn't have a plan to prepare.

What About Your Disaster Plan for Fuels?

Let's focus on the last reason – doing the wrong kind of planning. Your plan likely has procedures for how often you have to meet with various individuals in the chain of command, where emergency vehicles have to be moved to at what time, guidelines for evacuating designated groups of people, and assessment/allocation of available resources, both physical and human. Even if your disaster plan isn't as lengthy as, say, City of Miami's (48 page) novel, you should expect it to cover those areas.

But the obvious fact is that in order to execute the steps for evacuations and the transferring equipment/supplies to needed destinations, and providing command centers with essential power, you have to have access to good fuel that works like it's supposed to, and works when you need it. If the fuel is bad, very little else in the plan is going to go as expected.



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- **The 2003 Blackout** - hit a large part of the country and affected 50 million people. Fully 20% of emergency systems put into place specifically to provide power in such an emergency failed to work because the fuel contained therein didn't work.
- **Superstorm Sandy (2012)** – the well-publicized case of NYU's Langone Medical Center and Bellevue Hospital having to evacuate critical care patients because their back-up generator systems failed.
- **Hurricane Katrina** – when 80% of New Orleans wasn't being flooded by 20 feet of water, a significant number of backup generators simply failed to work, due to lax maintenance.



How Not To Be A Statistic

Consider these suggestions to supplement your emergency preparation plan. Hopefully your plan will already include some or all of these steps. These steps will ensure that the fuels you rely on to power your backup systems will do their job in your hour of need. The recommendations are group according to the decreasing time frame leading up to storm landfall.

5 Days to 72 Hours Before Landfall: Pre-Storm Activities

- Make sure fuel deliveries are scheduled to ensure fuel storage tanks are full as needed
 - There's less guarantee you'll be able to get fuel the closer landfall-time comes
- Perform water housekeeping procedures and test stored fuel for bacterial content
 - Microbial test strips take several days to work, so this should be done as early in the process as possible, even earlier than 5 days if you have enough warning
- Treat stored fuel with biocide if microbial tests come back positive
- Top off the fuel in all essential vehicles
- Test and fuel backup generators

72-48 Hours Before Landfall: Pre-Hurricane Watch Activities

Hurricane watches most commonly start 48 hours before expected landfall.

- Performance fuel filtration for infested fuel with positive microbial tests as per earlier
- Run refueled generators after filling to ensure proper functioning with new fuel
- Top off fuel tanks and service all vehicles, portable and emergency generators, pumps, compressors and ventilators.

36 Hours Up To Landfall

- Test backup generators one final time
- Fuel all essential vehicles as needed



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- Store and/or secure an extra supply of fuel if needed

Storm Landfall: The First 24 Hours

If you've followed the previous steps, you shouldn't have to worry about fuel issues during that first 24-hour period when you've got plenty of other things to worry about.

Ongoing Preparations When All Things Are Quiet

When it comes to fuels, a lot of the success that you'll have in implementing the above steps relies on groundwork you can lay during the "times of plenty" – when everything is fine and no storm is on the horizon. The best thing you can do on an ongoing basis is control the water buildup in your storage system and keep the microbes at bay. You likely have water remediation steps you take regularly, but what about the microbes?

Microbial growth in fuel tanks definitely falls under the category of "better safe than sorry". It's much less stressful (and much less expensive) to prevent microbial growth in fuel tanks than to try eradicate an active infestation after it's established. Especially when the infestation spreads to all areas of your fueling system.

Beyond proper water control steps like draining, the best thing you can do to prevent microbial growth is to periodically treat your tank system with a biocide. Once a quarter is a good interval, though if your housekeeping measures aren't the greatest, it's in your best interests to do it sooner, say every 2 month or 6 weeks.

Biocides are highly regulated and very concentrated – a typical maintenance treat rate would only be 1:10,000, meaning you could treat a 5,000 gallon fuel storage system with only 64 oz of biocide. Such a high treat makes maintenance treatment very cost effective – you'd probably pay \$100-\$150 at the most to ensure that 5,000 gallon fuel system stays problem free.

If you want to ensure the best chance of success with your fuels in the quiet times when there's no storm expectation, periodic treat with a biocide is your best protection.

Choose The Right Partner

Sometimes, it's helpful to have a partner that can guide you through this process, especially the process of ongoing preventive treatment of stored fuels. The best partner is your fuel supplier who, in an ideal world, would be equipped with the knowledge and the solutions to help you ensure you're doing what's needed to minimize the chance of problems down the road.

If you have to look beyond your fuel supplier, the right partner should combine the right amount of experience with access to the right solutions (both for testing and prevention), and should bring both of those to the table with a philosophy of ensuring that their priority is to turn you into the expert.

If you'd like more information on any of these issues, we welcome your calls to 407-831-5021, where a fuels expert will be on hand to assist you.

Depend on Bell Performance!