

Riding Out the Storm

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David Rentrop, Operations Director for W. R. Grace & Co.'s catalyst plant in Lake Charles, La., has experienced a number of hurricanes in recent years, including Rita, Ike, and Gustav. He leads the facility's 'ride-out crew,' which, in the case of a severe storm, remains behind after all other employees have evacuated the premises. Then, after winds have subsided to less than 50 to 60 miles per hour, the crew performs an early assessment of any damage, determining which areas of the facility are safe for use.

Rentrop earned his chemical engineering degree from Louisiana Tech University in 1978 and has been with Grace since 1982. Over the years, he moved up from Process Supervisor to Production



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Superintendent to Operations Manager. He became Operations Director in 2005, just two months before Hurricane Katrina, as it turned out, and three months before Hurricane Rita.

"That was my introduction to hurricanes," he explains. "We didn't need a ride-out crew for Katrina, but with Rita, we established a crew of 14 people—including electricians, technicians, instrument operators, welders, maintenance millwrights, and supervisory personnel—for a Category 3 hurricane that made landfall just 30 miles west of our plant site. Rita was the first that really hit here that we had to respond to. We were in the worst area for that storm."

The experience helped shape new plant policies and prepare Rentrop's team for future storms. One area of much focus was power generation.

"It was our first time getting slammed and there was a lot of scrambling after the fact to get large-scale generators and truckloads of diesel," he says. "Now we rent emergency generators and bring them in before hurricane season."

After all, reliable power is not just a post-storm recovery issue for Grace, but also a question of continuity during ride-out circumstances.

"We try to keep our crew at a minimum and shut down the plant, but we need to keep our sodium silicate furnace

hot," Rentrop explains. "We also need power to ensure the environmental security of the site, keeping pH levels and flows in check."

Backup communications are another concern in the face of possible interruptions.

"After Rita, I got a satellite phone," says Rentrop. "I have not yet had to use it in a storm situation, but it will work when nothing else does."

In addition to power outages, another obvious hazard during a hurricane is high winds, which can cause immense structural damage if not safely anticipated. Rentrop's team has learned from assessing damage after a storm passes.

"Now, at the start of the hurricane season, we check to ensure there is no loose equipment anywhere," he says. "Anything with the potential to go airborne, such as temporary scaffolding, is removed or tied down. With inventory, in some cases we want full tanks so they'll stay down, but some high-value raw materials are moved east or west to different facilities, sometimes even north as far as Arkansas."

In terms of ongoing preparation, Rentrop and the ride-out crew evaluate the plan annually and after each storm.

"Our experience with the U.S. Occupational Safety and Health Administration (OSHA) Process Safety Management

Rentrop leads the hurricane ride-out crew at W. R. Grace & Co.'s catalyst plant in Lake Charles, La.



(PSM) regulation and the OSHA 'Star' Voluntary Protection Program (VPP) provide the foundation for our hurricane preparations," he says.

The Lake Charles plant received OSHA Star certification in August 2005, only a month before Rita made landfall.

"We don't have chemicals here in sufficient quantities to necessitate following PSM, but we made the decision to follow it anyway, as it's a smart business decision that pays for itself," he says. "Our experience going through the OSHA PSM process has certainly helped prepare us for dealing with hurricane safety measures."

Other business-oriented precautions before a storm include relocating accounts-payable activities to Chattanooga, Tenn., and assessing export transactions at Grace's warehouse facility in Houston, Texas.

Communication with employees is critically important immediately following a storm. Up-to-date information for employees is remotely activated and maintained on Grace's website. Also, a 24-hour hotline is activated to let employees know about return-to-work information.

Another post-Rita initiative at the company's Lake Charles plant—which has seen five major expansions during Rentrop's years working there—has been the establishment of a new control center building.

"During Rita, we rode out the storm in the administrative building and could hear siding flying around as the storm built up," says Rentrop. "Since then, Grace has set up a special Category 5 building that will withstand these wind strengths. Our computer-control systems are all there on the second floor to prevent damage by either wind or water. We've also expanded the ride-out crew a bit on the control side, with people who know our systems inside out."

The top floor of this 38 x 22-foot building is intended for hurricane ride-out use as necessary.

"If Hurricane Ike had come in closer in 2008, we would have sheltered in the station," Rentrop explains. "We did see lots of wind here during that Category 2 storm. We also had to respond to Hurricane Gustav, which made landfall west of New Orleans."

Another key to long-term success is regular, ongoing planning, even well outside of hurricane seasons.

"We have plant safety meetings every month," says Rentrop. "We have 10 each month, in fact, to cover all of the various shifts and groups. Prior to hurricane season, we go through our preparation plan with all employees. We cover the plan for the plant, as well as personal preparations employees need to make with their families."

As a result, at this point, Grace's employees know the drill.

"When we send people home because of a storm, everyone in the ride-out crew shows up prepared and we perform a final walk-through assessment of the site," says Rentrop. "I remind them they're here strictly on a voluntary basis and if their personal situation changes, they may evacuate. They understand there comes a time in the storm when you have to stay, but before then, they are allowed to evacuate."

While the ride-outs may sound stressful, Rentrop says they are one of his favorite parts of his job.

"Some of the best moments of my career have been in the ride-out crew," he says. "It's fun. You have an intense, dedicated workgroup and a limited scope to the mission, with the entire Grace organization supporting the effort." ●

With files from W. R. Grace & Co. For more information, visit www.grace.com.