



RENTAL
SYSTEMS

CONTINGENCY PLANNING

Emergency Response | Planned Projects



Before an emergency happens, it's important for every building to have an emergency plan in place if the HVAC and power system were to break down.

800-586-8336

Contingency Planning:

The HVAC and electrical power systems are such an integral part of our everyday life that even temporary shutdowns could lead to devastating results. Developing an emergency response plan can help save time and money should a system failure occur. Utilizing temporary equipment from Carrier Rental Systems enables building owners and managers to make decisions quickly.

Key steps to developing an emergency response plan:

- **Identify the facility's critical equipment.** Critical equipment is defined as any system or equipment that is considered a revenue producer or that has lives depending on it. Begin by assuming the worst-case scenario – the HVAC system breaks down on the hottest day of the year. Think about each component with the following questions in mind:
 - *What would happen if this component shut down (for a minute, an hour, a day, a week)?*
 - *Can the system or building function without it?*
 - *Is there a back-up system? What if it failed?*
- **Determine all building-specific information.** Before an emergency rises, water pressure and type of structure should be considered along with support services such as rigging, forklifts, cranes, mechanical contractors, electricians, pipe fitters and fuel services. A detailed equipment layout to help facilitate quick installation and directions for trucking companies is also recommended.
- **Estimate the downtime parameters.** In the case of a system failure, consider how long it will take to repair or replace a piece of equipment versus how long it will take for temporary equipment to be up and running. If equipment can be repaired quickly, a temporary system may not be necessary. If repairs will take days or even weeks, portable equipment and services will be needed.
- **Create a list of portable equipment required to replace the functions of the equipment identified.** Consider the size of the space and configuration of existing equipment and provide the piping, duct connections and electrical disconnects needed for temporary installation.
- **Install the piping and duct connections and electrical disconnects needed for temporary equipment installation.** Making changes such as adding access valves in large pipes before an emergency allows for rapid installation and can save valuable time and money.
- **Compile a list of emergency contacts and phone numbers.** It's important to have a plan to communicate with the building's occupants and the emergency response team.
- **Agree upon contract terms and conditions prior to the need for services.** All contract terms and conditions for renting emergency equipment should be agreed upon and signed before the need for services arises. Preparing now will save valuable time and reduce the expense and aggravation of an emergency.





Case Study

A 42-story office building experienced a condenser tube failure on a 1,200-ton chiller. Carrier Rental Systems was called to investigate the feasibility of setting up a temporary chiller. Since the outside temperature was getting cooler, a temporary solution was not needed. Working with building management, Carrier Rental Systems designed a contingency plan. Due to the height of the building, the chilled water piping system had to be designed for 300 PSI water pressure. Carrier Rental Systems suggested the installation of access valves and piping to allow for a rapid installation of a temporary system. The following spring the same chiller suffered a motor failure. The lead time to repair the motor was 6-8 weeks. The outside air temperature was getting warmer and a portable chilled water system was requested. It was a Thursday afternoon and the building management wanted additional chilled water capacity by the start of business the next Monday morning. Based on the previous contingency plan, Carrier Rental Systems designed a portable system that would allow for the initial installation of 500 tons of cooling. The key to the system was a high-pressure plate & frame heat exchanger that could produce 1,000 tons of cooling. The 300 PSI building water pressure was circulated through one side of the exchanger and a modular 500-ton chiller had to be added a few weeks later due to hot weather and remained in operation until the failed chiller was repaired.

Carrier Rental Solutions Include:

- **Water-Cooled Chillers**
- **Air-Cooled Chillers**
- **Air Conditioners**
- **Air Handlers**
- **Cooling Towers**
- **Spot Coolers**
- **Dehumidifiers**
- **Heaters**
- **Boilers**
- **Generators**



Get started on your contingency plan today by contacting Carrier Rental Systems at **800-586-8336** or visiting **Carrier.com/Rentals**.



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