

Install a Generator for Emergency Power

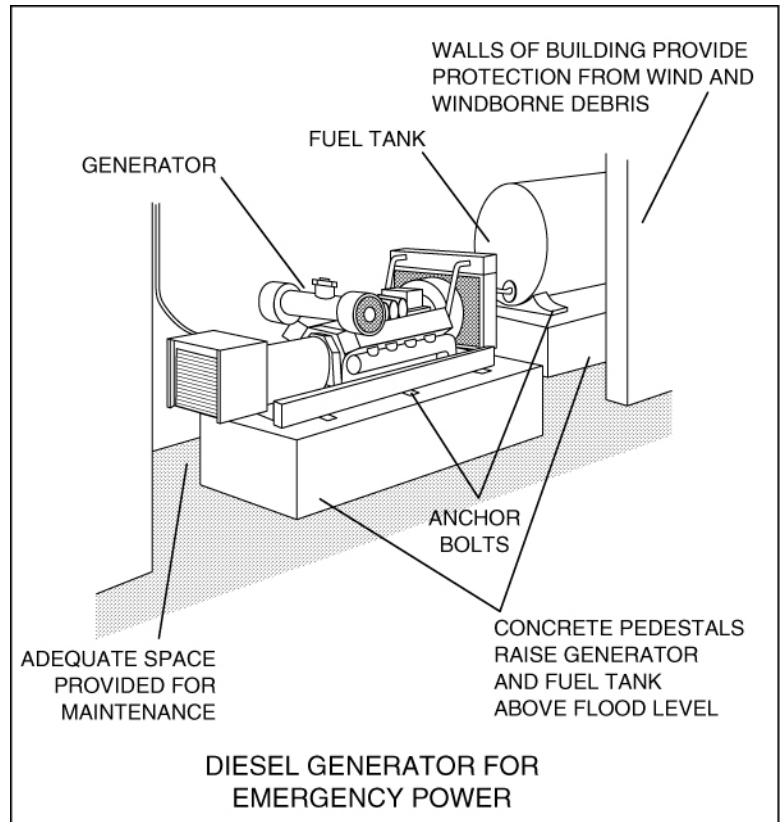


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PROTECTING YOUR PROPERTY FROM NATURAL HAZARDS

Power outages are commonplace during disasters, and they may last for several days. As a result, even businesses that are not severely damaged can suffer losses because of the interruption of normal operations or the loss of perishable stock. You can reduce these losses and speed the recovery process by installing an emergency generator. First, determine which systems and equipment are essential to the continued operation of your business. They may include one or more of the following:

- Heating, ventilation, and air conditioning (HVAC) systems
- Industrial equipment and major appliances, such as refrigerators and freezers
- Lights (interior and exterior), computers, and other office equipment
- Pumps, including sump pumps, sprinkler system pumps, and well water pumps
- Alarm systems



Once you have identified the essential systems and equipment, determine how much power they require. Then check with a generator sales representative regarding the appropriate size and type of generator. The sales representative can also help you select other components of the emergency power system, including the main transfer switch and the electrical panel.

BENEFITS OF USING GENERATORS

- Helps to prevent the interruption of normal business operations
- Helps to prevent the loss of perishable stock
- Helps to speed the recovery process

TIPS

Keep these points in mind when you select and install a generator:

- ✓ Protect your generator and its fuel tank from flooding and high winds. In flood hazard areas, mount the generator and tank securely on concrete platforms, above the expected flood level. Install the generator and tank inside or next to a building or protective structure to shield them from wind and windborne debris.

Electrical and fuel supply lines must also be protected. And remember that your generator must be accessible for maintenance and that exhaust gases must be routed to the outside if the generator is installed in an enclosed area.

- ✓ Some systems and equipment may have to operate continuously (refrigerators for example), while others may be needed only during normal business hours (such as office equipment).
- ✓ You will need more power to restart systems and equipment when the power fails than to continue operating them after startup. The generator you choose must be able to meet both of these needs. (You can minimize the power requirements for startup by starting individual systems and equipment in sequence rather than all at once.)
- ✓ Before you buy a generator, ask your utility company if it has regulations that govern the use of emergency power equipment. Also, the installation of the generator and all wiring, switches, and other electrical components must meet the requirements of your local electrical codes.
- ✓ Be sure to maintain an adequate supply of fuel. Your sales representative should be able to tell you the generator's rate of fuel consumption at various power output levels.
- ✓ Follow the manufacturer's recommendations for routine maintenance of your generator.

ESTIMATED COST

The cost of a generator will depend on the types and amount of equipment and systems that need to be powered, the requirements of local codes and utility companies, and the type of generator you choose and its specifications (i.e., amperage, voltage).

OTHER SOURCES OF INFORMATION

FEMA 141, *Emergency Management Guide for Business and Industry*, October 1993,
<http://www.fema.gov/library/viewRecord.do?id=1689>.

FEMA 259, *Engineering Principles and Practices of Retrofitting Floodprone Structures*, January 1995,
<http://www.fema.gov/library/viewRecord.do?id=1645>.

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Protect Business Records and Inventory



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PROTECTING YOUR PROPERTY FROM NATURAL HAZARDS

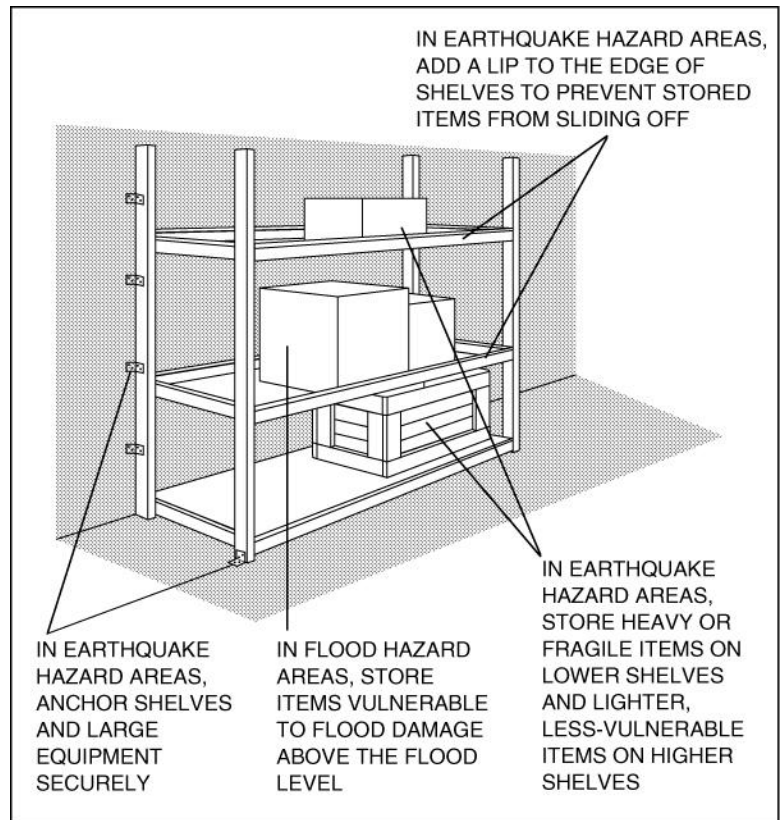
Most businesses keep on-site records and files (both hardcopy and electronic) that are essential to normal operations. Some businesses also store raw materials and product inventory. The loss of essential records, files, and other materials during a disaster is commonplace and can not only add to your damage costs but also delay your return to normal operations. The longer your business is not operating, the more likely you are to lose customers permanently to your competitors.

To reduce your vulnerability, determine which records, files, and materials are most important; consider their vulnerability to damage during different types of disasters (such as floods, hurricanes, and earthquakes) and take steps to protect them, including the following:

- Raising computers above the flood level and moving them away from large windows
- Moving heavy and fragile objects to low shelves
- Storing vital documents (plans, legal papers, etc.) in a secure off-site location
- Regularly backing up vital electronic files (such as billing and payroll records and customer lists) and storing backup copies in a secure off-site location
- Securing equipment that could move or fall during an earthquake

BENEFITS OF UTILIZING THIS MITIGATION STRATEGY

- Helps to prevent the loss of essential business records and files, and protects raw materials and product inventory
- Helps a quick return to normal business operations
- Helps to prevent the loss of customers to competitors



TIPS

Keep these points in mind when protecting your business records and inventory:

- ✓ Make sure you are aware of the details of your flood insurance and other hazard insurance policies, specifically which items and contents are covered and under what conditions. For example, if you have a home business, you may need two flood insurance policies, a home policy and a separate business policy, depending on the percentage of the total square footage of your house that is devoted to business use. Check with your insurance agent if you have questions about any of your policies.
- ✓ When you identify equipment susceptible to damage, consider the location of the equipment. For example, equipment near a hot water tank or pipes could be damaged if the pipes burst during an earthquake, and equipment near large windows could be damaged during hurricanes.
- ✓ Assign disaster mitigation duties to your employees. For example, some employees could be responsible for securing storage bins and others for backing up computer files and delivering copies to a secure location.
- ✓ You may want to consider having other offices of your company or a contractor perform some administrative duties, such as maintaining payroll records or providing customer service.
- ✓ Estimate the cost of repairing or replacing each essential piece of equipment in your business. Your estimates will help you assess your vulnerability and focus your efforts.
- ✓ For both insurance and tax purposes, you should maintain written and photographic inventories of all important materials and equipment. The inventory should be stored in a safety deposit box or other secure location.

ESTIMATED COST

The cost of these measures will depend on the size and contents of your business, the nature of the potential hazards, and the effort required to ensure proper protection. In some instances, you may need to buy new equipment, such as a backup hard drive system.

OTHER SOURCES OF INFORMATION

FEMA 141, *Emergency Management Guide for Business and Industry*, October 1993,
<http://www.fema.gov/library/viewRecord.do?id=1689>.

National Flood Insurance Program Summary of Coverage, FEMA, March 2007,
<http://www.fema.gov/library/viewRecord.do?id=3011>.

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