Safeguard Your Aquarium from Power Outages

Drs. Foster & Smith Educational Staff

Are you prepared for potential power outages this summer? Most aquarium systems rely on high tech equipment to support their inhabitants. When the power goes out, these life support systems fail and aquarium conditions deteriorate. Learn how you can minimize fish stress and potential loss during a power outage.

what's happening:

The three most common events that occur in an aquarium without power are oxygen depletion, variation in water temperature, and ammonia buildup.

- **Oxygen depletion** - Without water movement and aeration to replenish oxygen, aquarium inhabitants slowly use up their oxygen supply. Keep in mind that salt water contains less dissolved oxygen than fresh water. This means oxygen depletion occurs faster in marine aquariums than in freshwater aquariums.
- **Temperature fluctuation** - Rapid changes in water temperature stress fish and put them at risk of opportunistic, disease-causing agents. Also, water loses its capacity to hold onto oxygen as temperatures increase. This accelerates oxygen depletion to put further stress on the aquarium environment.
- **Ammonia buildup** - Without active filtration, ammonia from natural biological processes can elevate to toxic levels.

what to do:

Provide oxygen - Keep a battery-powered air pump, airline tubing, and airstones on hand for each aquarium you own. Place airstones near the water surface so harmful waste materials are not stirred up.

Maintain proper water temperatures - While tropical fish are relatively unaffected by ambient summer temperatures, corals and reef invertebrates are sensitive to high water temperatures. As a precaution, store clean, plastic bottles filled with water in your freezer during summer. In a pinch, these frozen bottles can be placed in your aquarium to maintain water temperatures within an acceptable range.

*Unauthorized use of any images, thumbnails, illustrations, descriptions, article content, or registered trademarks of **Foster & Smith, Inc.** is strictly prohibited under copyright law. Site content, including photography, descriptions, pricing, promotions, and availability are subject to change without notice. These restrictions are necessary in order to protect not only our copyrighted intellectual property, but also the health of pets, since articles or images that are altered or edited after download could result in misinformation that may harm companion animals, aquatic life, or native species.*

Minimize the toxic effects of ammonia - A fast-acting ammonia detoxifier such as AmQuel+ Plus or Drs. Foster and Smith Instant Ammonia Remover is crucial during long-lasting power outages. Use the ammonia detoxifier again when the power goes back to prevent a potential ammonia spike due to compromised biological filtration.

an ounce of prevention

If you do not have them already, invest in Ground Fault Circuit Interrupters (GFCIs), like the Shock Buster. They prevent electrical damage to costly aquarium equipment when the power shuts off or suddenly turns back on. Having these items at home is crucial since your nearest aquarium supply store may not be open, or may also be without electricity. When power returns, make sure your filter is in proper running order. Test your water parameters and if necessary, perform a partial water change to replenish vital oxygen and to remove harmful chemicals.

Q **I have been told that when the power goes out, airstones from battery-powered pumps should be placed near the water surface. Why the top instead of the normal bottom placement?**

A Airstones placed at the top of the aquarium during power outages promote better gas exchange. Also, harmful waste materials on the bottom are not stirred up and mixed within the water column.

*Unauthorized use of any images, thumbnails, illustrations, descriptions, article content, or registered trademarks of **Foster & Smith, Inc.** is strictly prohibited under copyright law. Site content, including photography, descriptions, pricing, promotions, and availability are subject to change without notice. These restrictions are necessary in order to protect not only our copyrighted intellectual property, but also the health of pets, since articles or images that are altered or edited after download could result in misinformation that may harm companion animals, aquatic life, or native species.*