

# Volcanic Ash Fall Preparedness Checklist

By Stephanie Dayle via The American Preppers Network

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## **Essential items to stock, hopefully now, before an ash fall is even threatened.**

A sustained ash fall may keep people housebound for hours or even days. Keep these items in your home in case of an ash fall:

- Dust masks (CE N95, or CE N100) and eye protection for each person. The 3M 8233 mask is one of the 'best and longest lasting' masks approved for use in volcanic ash, with a time limit of use at 38 hours.
- USGS General Information Product 64 Enough drinking water for at least 1 week, three gallons of water, per person, per day (these recommendations are more robust than what you will find at USGS or FEMA because we do not feel those are adequate and we hope you are working on a much larger supply of water regardless).
- A WaterBOB is a good way store extra water in a pinch and keep it clean. It collapses down to nothing so can be kept even in the smallest of apartments.
- Inexpensive pH test strips.
- A working carbon monoxide detector (go ahead and install it now).
- Enough non-perishable food for each person for at least one week (hopefully you are working on a year's supply).
- Plastic wrap (to keep ash out of electronics).
- Battery-operated radio and extra batteries
- Lanterns or flashlights and extra batteries and/or lantern fuel.
- If you live in an area with cold winters: extra wood for a fireplace, stove, or another source of emergency heat.
- If you live in an area with cold winters: extra blankets and warm clothing.
- Old fashioned games, cards or puzzles to keep kids occupied without electricity.
- First aid kit (this should include at least a week's worth of any medication you are currently taking, preferably more)
- Cleaning supplies (broom, vacuum cleaner & bags/filters, shovels, garbage bags etc.).
- Cash money (ATM machines may not be working).

## **Animals and Livestock - Items to Stock**

- Enough pet food for at least one week (but I would hope you are working on a year's supply).

- Enough water for your pet for at least one week, an average sized dog will drink between 1.5 to 2 liters of water a day. (Again, I hope you are working on a larger supply).
- Puppy pads (even if you have adult dogs) in a pinch newspapers will do.
- Pet first aid kit (should include extras of any meds your pets are currently taking)
- Poop bags, ziplock bags and extra garbage bags.
- A litter box and extra litter.
- Extra 'outdoor' shovels and brooms stored in an area near or in your outdoor structures for your livestock (sheds, coops, barns).
- Enough dry feed to last at least one week (hopefully you are working on an even larger supply).
- Tarps of sufficient size to cover stock tanks and small ponds.
- Inflatable pool cover pillows.
- Inexpensive pH test strips.

**Ash fall is imminent. Actions to be taken BEFORE ash begins to fall.**

- Close doors and windows.
- Place damp towels at door thresholds and other draft sources. Tape drafty windows and seal all but one entrance/exit.
- Protect sensitive electronics with plastic wrap and do not uncover until the environment is totally ash-free.
- Disconnect drainpipes/downspouts from gutters to stop drains clogging, but allowing ash and water to empty from gutters onto the ground.
- If you use a rainwater collection system for your water supply, disconnect the tank and seal it shut prior to ash falling.
- If you have chronic bronchitis, emphysema or asthma, stay inside and use an approved mask (see above) if air quality declines.
- If you have children, know your school's emergency plan so there is no confusion on where they are.
- If you have a 'transition room' like an enclosed porch, mud room, or an indoor garage that you could use as a transition room - seal this room up from the rest of the house as well, but leave it to where you can still use it to exit your home. This way if you have to go out in the ash you can use this room to get undressed and to dust yourself off - then enter the rest of the house without bringing all the ash in with you.
- Charge up all of your electronic devices - before ash begins to fall, wrap all sensitive electronic in plastic wrap or garbage bags. This should include computers, tablets, flat screen TVs, smart phones, and any sensitive stereo or radio equipment that you care about, these should remain covered until the ash done falling and is cleaned from your home.
- Get out all masks, light sources and an emergency radio and put them in one central location.

- ❑ While there is no guarantee that your water supply will be compromised or even shut off now is a good time to fill up your tub or WaterBOB with extra water, just in case. If you are continuing to use a public water supply testing the pH periodically wouldn't hurt.
  - Most precipitation has a pH level slightly below 7 (neutral); contact with carbon dioxide in the air makes it slightly acidic. "Acid Rain" is the term for precipitation with a pH of less than 5.6. Acidic water leads to corrosion of brass fixtures, copper plumbing, steel tanks, heating elements in hot-water heaters, and concrete. Fresh volcanic ash typically lowers the pH of water. For example, an ash fall of 3-6 mm in Anchorage, Alaska, during the 1953 eruption of Mount Spurr caused the pH of the public water supply to fall to 4.5; within a few hours, the pH returned to 7.9 (source - USGS).

### **Ash fall is imminent what do for animals and livestock.**

- ❑ Make sure pets (caged birds, cats, dogs) are inside the home or in some other enclosed shelter (the home is best). A regular doghouse or open-ended outdoor shelter will not provide adequate protection.
- ❑ If a barn, shed, or coop is available livestock should be sheltered in these structures. Meaning chickens closed up in their coop, horses in a barn, pigs in a shed - all should be provided with ample food and water.
- ❑ If more than a half an inch of ash is forecasted to fall and you do not have extra feed or shelter for your livestock evacuation should be considered. Livestock without supplemental feed will try to eat the ash-laden grass and may poison themselves or suffer other negative health effects.
- ❑ Cover outdoor water supplies with tarps if possible too keep the ash out. Inflatable pool cover pillows (that normally keeps snow off of pools), can be used in conjunction with tarps (inflate the pillows float them on the water, cover the pond or stock tank and pillows with tarps, this keeps the tarp and ash above the water, without having to hang it up) to keep ash out of small ponds or large stock tanks.
- ❑ Cover outdoor haystacks with tarps.

### **Ash is now falling. What to do.**

- ❑ Remain calm.
- ❑ Stay indoors.
- ❑ If outside, seek shelter (like in a car or building).
- ❑ If warning is given before ash fall starts, go home from work.
- ❑ If at work when ash fall starts, stay indoors until the ash has settled.
- ❑ If air quality indoors declines. Use a mask, handkerchief or wet cloth over your nose and mouth.
- ❑ Do not tie up phone lines with non-emergency calls.
- ❑ Listen to your local radio for information on the eruption and cleanup plans.

- Do not wear contact lenses as these will result in corneal abrasion.
- If there is ash in your water you can filter it using your katadyn, berkley or other emergency water filter. Use a coffee filter as a "pre-filter" if possible to protect the actual filter from at least some of the harsh ash, you can also let the ash settle and then use the clear water. If there is a lot of ash in the water supply, do not use your dishwasher or washing machine. Water contaminated by ash will usually make drinking water unpalatable before it presents a health risk, but a quick pH test with a strip wouldn't hurt and would let you know if the water is starting to get acidic.
- Periodically check your roof for ash accumulation. Since most roofs cannot support more than four inches (10 cm) of wet ash, keep roofs free of thick accumulation. If rain is forecasted and you have received a heavy ash fall it may be necessary to remove some of the ash before it is done falling. This should be done with approved masks, goggles and gloves. Using brooms and shovels clear the roof with great caution. Volcanic ash makes roofs very slick; almost like ice use all safety measures.
- Limit your time outdoors and return indoors as quickly as possible via a "transition room" to limit the introduction of ash to the home.
- You may eat vegetables from the garden that have ash on them, but wash them first.

### **Ash is falling, what to do for Livestock and Animals**

- Avoid going outside at all with your indoor pets while ash is falling make use of litter boxes and puppy pads in an attached garage or other section of the dwelling until the ash subsides. Add poo and other waste to ziplock bags and to garbage bags to control smell. If you have to go outside to check the roof leave animal waste and garbage outside at that time then return quickly indoors.
- Animals will get restless indoors, patience will be required, toys or chewy treats may help this restlessness.
- Feed and water outdoor animals only when required using an approved mask and protective goggles. Check on the depth of the ash on the roof of these structures at this time. If rain is in the forecast - ash removal even before it is done falling may be necessary if the depth is exceeding 4 inches or 10 cm.
- If you have been unable to cover they livestock water supply - occasionally testing the pH of the water with some inexpensive pH test strips might be a good precaution to take.

### **Vehicles**

- Since there is always the possibility that you could be trapped in your vehicle during an ash fall, also store emergency supplies in your vehicle, a get home is deal for this emergency supply storage. If driving is no longer an option do not attempt to walk home in the middle of the ash fall instead use an approved mask

or a wet bandana to cover your nose and mouth and wait inside your vehicle for the ash fall to stop.

- If possible, avoid leaving your home and driving anywhere, as ash is harmful to vehicles, the roads may be slippery. Driving also suspends ash into the air, which causes low visibility and may be harmful to others.
- If driving is crucial, drive slowly, use headlights and ample windshield wiper fluid.
- Shut off air in-takes or seal them off manually.
- Using wipers on dry ash may scratch the windshield.
- In heavier ash fall driving should only be undertaken in an emergency.
- If out of wiper fluid use water bottles and a cloth to clean the windshield as required, this may be every few hundred yards.
- Change oil and oil filters frequently (every 50-100 miles in heavy dust; every 500-1000 miles in light dust).
- Do not drive without an air filter. If you can not change it, clean it by blowing air from the inside out using a service station air compressor or your own if you have one. Storing an extra air filter in your car is never a bad idea. Do not change it until you notice a loss of power to the engine, as a dirty filter is actually more effective at stopping volcanic ash than a clean one.

### **Vehicle - After the Ash Fall**

- Clean ash from inside your engine, trunk/boot and spare tire storage area as well as the seating area.
- Brushing ash off the car can cause scratching.
- Brake assemblies should be cleaned with compressed air. If you don't know how to do it yourself, have a service garage clean wheel brake assemblies every 50-100 miles for very severe road conditions, or every 200-500 miles for heavy dust conditions.
- Also clean alternators with compressed air after heavy accumulation, every 500 to 1000 miles, or after severe dust exposure.
- Clean the vehicle, including the engine, radiator, and other essential parts daily, if necessary, using water to flush the ash.
- Wash the engine compartment with a garden hose or steam cleaner. Be sure to seal off air intakes and electrical components before cleaning.