

Volcanic ashfall

Protecting buildings

Volcanic ash is mostly made up of tiny pieces of rock, minerals and glass. Ash particles are sharp and can travel with the wind for many miles before settling out of the air. Volcanic ash can be harmful to our health and can damage structures and equipment. However, steps can be taken to protect our communities before, during and after a volcanic eruption or ashfall event.



Ash cloud from Mt. Cleveland, May 2006.

PREPARING FOR AN ASHFALL EVENT

- Stay aware of volcanic activity in your area or region. Sign up for local notifications: <https://volcanoes.usgs.gov/vns2/>
- Confirm building generators are in working condition.
- Keep a stockpile of emergency supplies (respirators, eye protection, plastic sheeting, duct tape, brooms, shovels, etc.).
- Be cautious during clean-up. Serious secondary health problems related to ash are rare and usually occur during clean up (falling from ladders and roofs can be deadly).

EXTERIOR BUILDING PREPARATION FOR AN ASHFALL EVENT

- Shut-off and cover outdoor electrical equipment with plastic sheets (security cameras, card readers, alarms, electrical panels).
- Close and seal air intake vents. Protect essential air intake vents with hoods or filters.
- Identify/pre install safe ways to access the roof for major ash removal.



*Dusting of Redoubt Volcano ash on snow.
Indian, Alaska, February 21, 1990.*

INTERIOR BUILDING PREPARATION FOR AN ASHFALL EVENT

- Close/seal doors, windows and air intakes (use plastic wrap and duct tape).
- When possible, shut off heating, ventilation and air conditioning (HVAC) systems.
- Prepare generators and HVAC systems by protecting air intakes from ash (plan to monitor/replace any intake filters, install a hood on the intake to reduce the amount of ash entering the system).
- Shut-off and cover all nonessential electronics with plastic sheets (ash can conduct electricity and damage electronics).
- Create an entry area where people can remove shoes and outdoor clothes before entering the rest of the building (use arctic entries if available).



Hood to protect air intake.

https://volcanoes.usgs.gov/volcanic_ash/HVAC_gensets.html

DURING AN ASHFALL EVENT

- Place a damp towel at the bottom of external doors.
- Restrict access (as much as possible) to limit the amount of ash entering the building.
- Monitor essential equipment with air intakes.

AFTER AN ASHFALL EVENT

- Clean after the ashfall has stopped.
- It's recommended to only clean off roofs in cases of heavy ashfall (over 4 inches), which is rare in most communities. Be aware that roofs may be slippery or weakened by the weight of the ash.
- Coordinate with the city, Tribe and whole community on the ash clean up.
- Work safely by wearing sturdy footwear, safety harnesses, goggles, long sleeves, and respirators.
- Clean from the top-down and keep the the wind direction in mind to prevent contaminating previously cleaned areas.
- Clean gutters and disconnect downspouts as soon as possible.
- Clean and monitor any equipment with air intakes.
- Use dustless methods of cleaning (damp rags, vacuums).
- Boil a pot of water to help remove suspended ash from the air.



Detached guttering

https://volcanoes.usgs.gov/volcanic_ash/clogging_gutters_drains.html

RESOURCES

https://volcanoes.usgs.gov/volcanic_ash/

<https://www.cdc.gov/disasters/volcanoes/during.html>

<http://dhss.alaska.gov/dph/Epi/Pages/volcanoes/default.aspx>



**ALASKA NATIVE
TRIBAL HEALTH
CONSORTIUM**

For more information, contact the ANTHC Community Environment and Health department at CEH@anthc.org