

Natural gas safety during major snow and ice events



Heavy winter storms can compromise natural gas infrastructure, both aboveground and underground. Consider the possible impact of major snow and ice events on natural gas infrastructure when sizing up incidents involving natural gas leaks, fires or explosions.

Look for:

- **Damage to gas service meters or regulators.** Extreme weather conditions can place undue stress on gas meters, piping and regulators. As you help your community recover from major winter storms, watch for natural gas equipment subjected to accumulated ice, snow and ice falling from roofs, and standing water freezing and thawing around pipes.
- **Blocked exhaust or combustion air vents.** Every year, injuries and deaths result from carbon monoxide (CO) poisoning when exhaust and combustion air vents for gas appliances become blocked by snow and ice. CO forms when natural gas does not burn completely because there isn't enough air for combustion to occur. CO poisoning symptoms resemble flu symptoms. If you suspect CO, get victims into the open air, have them breathe deeply and seek medical help for them immediately.
- **Pipelines compromised by frost heave.** In sustained subfreezing conditions, or during spring freeze and thaw cycles, ice can expand underground and push up ice and soil in an effect called frost heave. Frost heave can sometimes damage underground gas distribution pipelines. Older neighborhoods with older natural gas infrastructure, such as cast-iron mains, are more likely to be affected. Larger transmission pipelines can also be damaged by frost heave.
- **Migrating gas leaks.** In large-scale events, gas leaking from damaged underground pipelines can be trapped by ice and snow and migrate some distance before entering buildings, utility vaults or sewer systems. When you are called to a gas leak, fire or explosion, use your natural gas monitor to check around nearby manholes for migrating leaking gas. Do not open or enter manholes or vaults where natural gas is present until National Grid employees say it is safe to do so.

Response tactics

In any incident where you suspect or have confirmed that natural gas or CO is involved, notify National Grid through your dispatcher immediately, wear full PPE and SCBA, evacuate to at least 330 feet as soon as possible, eliminate ignition hazards and monitor the atmosphere.

For more safety information and training, visit firstresponder.ngridsafety.com.
To report emergencies, call 911 and National Grid immediately.