



An Extended Guide · No. 1222

Storing Fuel Safely and Keeping It Fresh

Fresh fuel, safe cans,
and no gummed-up engine

Tech Made Simple — Service Made Personal

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! Read this first — carbon monoxide is the real danger

A running generator's exhaust contains carbon monoxide — an invisible, odorless gas that can kill in minutes. Never run a generator indoors, in a garage, in a shed, or on a porch, not even with the door open and a fan going. Run it outside only, well away from the house — the safety agencies say at least 20 feet — with the exhaust pointed away from every window, door, and vent. Put battery-backup carbon-monoxide alarms on each floor and outside the bedrooms. If an alarm sounds, or anyone feels dizzy, sick, or sleepy, get everyone into fresh air first and ask questions later. Stored fuel brings its own fire and vapor risks right alongside this one, and this guide treats both with the same respect.

Let's keep your fuel fresh and safe

A generator is only as ready as the fuel sitting next to it. This guide walks through storing gasoline and propane the right way, so the one time you need it, it starts.

I'm Bill, and I run Bill's Home Tech here in Portage County, Ohio. More generators fail to start from bad fuel than from any mechanical problem I see — it's almost always preventable, and almost always overlooked.

None of this is complicated once you know it. We'll cover the right containers, how much to keep, where it should live, and a simple rotation habit that keeps it fresh without becoming a chore.

★ Bring me your questions

Fuel storage rules can feel fussier than they need to be. If you're ever unsure whether your setup is safe, describe it to me and I'll set your mind at ease — or tell you honestly what to change. Call or text (330) 200-8042.

The whole guide, on one page

If you remember only these things, your fuel will be ready when you need it.

- ❑ Use only approved containers — purpose-made gas cans or propane cylinders, never improvised ones.
- ❑ Store fuel detached from the house, away from heat, flame, and any pilot light.
- ❑ Gasoline goes stale in months. Stabilizer and rotation keep it usable.
- ❑ Ethanol-free gasoline generally stores better than the blended kind sold at most pumps.
- ❑ Propane stores for years, but tanks still need proper handling and periodic recertification.
- ❑ Stale fuel is the single most common reason a generator won't start. Don't let it happen to yours.

✓ Little and fresh beats a lot and old

A modest amount of well-rotated fuel is far more useful in an outage than a garage full of fuel nobody's checked in two years.

Start with the right container

The container matters as much as the fuel inside it.

Gasoline belongs in a purpose-built container — typically a red plastic or metal can rated for fuel, with a tight, self-venting cap. These are built to control vapor, resist a spill, and hold up over years of handling. They're sold at any hardware store.

What to avoid

Never store gasoline in glass, in a container that once held something else, or in anything not rated for fuel. A loose or makeshift cap invites both a spill and a slow leak of vapor — exactly what you don't want near a source of heat.

! Label and date every container

A simple piece of tape with the fill date keeps you honest about rotation, and clear labeling keeps anyone else in the house from mistaking it for something it isn't.

How much is actually enough?

More isn't automatically safer — the goal is enough for the outage you expect, not a stockpile.

Think in terms of your realistic outage length plus a modest reserve, not a worst-case hoard. A large stockpile of gasoline is both a bigger fire load in your storage space and more fuel that can go stale before you use it.

Local fire codes often limit how much fuel you can keep at a residence — it's worth a quick check with your local fire department if you're planning to store more than a couple of standard containers.

✓ Our sizing guide helps with the other half

How much fuel you'll burn also depends on what you're running and for how long — our sizing guide can help you estimate the outage side of this equation.

Where fuel should actually live

Location does more for fuel safety than almost anything else you'll decide.

Fuel — gasoline or propane — belongs in a detached, ventilated space away from the house: a detached shed, for instance, rather than an attached garage that shares a wall or a roofline with where you sleep.

- Away from the water heater, furnace, or any other pilot light — vapors can travel farther than you'd expect.
- Out of direct summer sun and away from any other heat source.
- Ventilated, so any slow vapor leak doesn't build up in a closed space.
- Never in a basement, living space, or anywhere near where people spend time.

! Vapors are the hidden risk

Gasoline vapor is heavier than air, can travel along the ground, and can reach a flame or pilot light you didn't think was close enough to matter. Distance and ventilation are what actually keep you safe.

Gasoline's shelf life, and how stabilizer helps

Plain gasoline doesn't wait well. Here's what actually extends it.

Left alone, gasoline begins to break down within a matter of months — it can lose potency, and the more volatile parts evaporate first, leaving a heavier residue behind that can gum up a carburetor.

A fuel stabilizer, added at the time you fill the container, slows that breakdown — commonly extending usable life to roughly a year, though some products claim longer. Follow the product's own instructions for the ratio and timing.

✓ Stabilizer isn't a substitute for rotation

Treat stabilizer as extending your window, not eliminating the clock. Even stabilized fuel is best used within a few months for the most reliable starts.

Consider seeking out ethanol-free gasoline

Not all gasoline ages the same way.

Most pump gasoline is blended with ethanol, which tends to attract moisture from the air and break down faster than gasoline without it — not ideal for fuel you're setting aside rather than burning right away.

Ethanol-free gasoline, sometimes found at marinas, small-engine dealers, or select stations, generally holds up longer in storage. It costs a bit more, but for fuel you're stockpiling rather than using immediately, it can be worth seeking out.

✓ Still use stabilizer and rotate it

Ethanol-free buys you time, not immunity. Combine it with stabilizer and a rotation schedule for the best results — see our fuel-types guide for more on how gasoline compares to propane.

A rotation habit beats a memory

The best fuel plan is one that doesn't rely on remembering.

First in, first out: use your oldest stored gasoline first, and replace what you use. Many people simply run older gas through the car or the lawn mower every so often and refill the storage container with fresh fuel — an easy way to keep the stockpile young.

- Date every container when you fill it.
- Set a calendar reminder every few months to check and rotate.
- Run the generator itself periodically under some load — it exercises the engine and uses a little fuel, which helps keep the supply moving.
- If a container's contents are older than your stabilizer's stated window, treat it as due for rotation, not a gamble.

★ A habit I can help you set up

On a visit, I can help you build a simple, realistic rotation schedule — one that fits how you actually live, not an idealized version of it. Call (330) 200-8042.

Fire and vapor safety, taken seriously

Gasoline is not just a fuel — it's also one of the more common fire hazards in an ordinary garage. A few habits keep it firmly on the safe side.

Gasoline vapor is flammable at levels you might not notice by smell alone, and it's heavier than air, meaning it can pool near the ground and travel toward a spark or flame you didn't think was close enough to matter.

Refuel the generator only when it's off and cooled — never while it's running or still hot — and always outdoors, never near an open flame, a lit cigarette, or a pilot light.

! No smoking, no flame, no exceptions

Keep any source of spark or flame well away from where fuel is stored or handled — that includes a running generator, a nearby grill, or a lit cigarette. Wipe up any spill immediately and let it fully evaporate outdoors before bringing anything flammable nearby.

Propane: storage and handling done right

Propane is more stable than gasoline, but it still deserves the same outdoor respect.

Propane cylinders store outdoors, always upright, with the valve closed and protected when not connected. Keep them away from any heat source and out of direct, prolonged summer sun.

- Never store a propane cylinder indoors, in a basement, or in an attached garage.
- Transport tanks upright and secured — never in a closed vehicle trunk for longer than the trip itself.
- Check the valve and connection for damage before each use; a rough-handled tank deserves a closer look.
- Keep cylinders away from where the generator itself will run, connecting them only outdoors.

! Never store a tank indoors

Even a small, slow propane leak can build to a dangerous concentration in an enclosed space. Tanks live outdoors, full or empty, always.

Propane tanks have a shelf life too — for the tank itself

It's the metal, not the gas inside, that eventually needs attention.

Every propane cylinder is stamped with a manufacture date, and after a period of years it needs professional recertification before it can be refilled — a routine check that most refill stations and propane dealers handle as a matter of course.

You don't need to track the exact interval yourself. When you take a tank in for a refill or exchange, the station will check the stamped date and let you know if it's due — or simply hand you a requalified one as part of an exchange program.

✓ When in doubt, ask your supplier

If you're not sure whether an older tank is still good, a propane dealer can check it in a couple of minutes. It's a quick question that heads off a wasted trip.

Two kinds of homes, two sets of needs

How much fuel to store, and how you rotate it, looks different depending on where you live.

If you live in town or the suburbs

In town or a close-in suburb, help and fuel are usually a short drive away, even mid-outage. Storage space may also be tighter, which naturally limits how much you'd want to keep anyway.

- A modest amount of stored gasoline, rotated through the car every so often, is often plenty.
- A spare propane cylinder or two covers most short outages without crowding the garage.
- Check any local fire code limits before you store more than a couple of standard containers.
- Shorter outages mean less pressure to keep a large reserve on hand.

If you are out in the country on a well

Out in the country, the nearest open station may be a genuine drive, especially in a widespread outage, and if you're on a well, running out of fuel means running out of water too.

- Plan a larger stored reserve than an in-town home would need — and rotate it just as faithfully.
- Propane's long shelf life is especially valuable here, since a generator may sit unused for a full season between outages.
- Consider a larger propane tank or a delivery relationship with a local dealer if you'll lean on propane heavily.
- Store extra fuel detached from the house, with the same distance from any outbuilding's heat sources.

★ Let's right-size your fuel plan

Tell me how long your outages typically run and how far you are from the nearest open station, and I'll help you figure out a sensible amount to keep on hand — not too little, not a hazard. Call (330) 200-8042.

What stale fuel actually does to an engine

It helps to understand why old gas causes so much trouble.

As gasoline ages, its lighter components evaporate first, leaving behind a heavier, sticky residue. That residue settles into the carburetor's tiny passages — some barely wider than a hair — and hardens into a varnish that blocks fuel from flowing properly.

Once that happens, the fix usually isn't a quick one. A gummed-up carburetor often needs to be disassembled and cleaned by a small-engine shop, which costs time and trouble that a little stabilizer and rotation would have avoided entirely.

! This is the #1 reason generators won't start

Of every won't-start call I get, stale fuel gumming the carburetor is the most common cause by far — and the most preventable. A rotation habit is cheap insurance.

How to tell if your fuel has gone bad

A few simple checks before you trust old fuel.

- **Smell:** fresh gasoline has a sharp, familiar smell. Stale gas often smells sour or 'off.'
- **Color:** fresh gas is usually clear to light amber. Darker, cloudy, or with visible particles is a bad sign.
- **Separation:** a layer or film in the container can mean the fuel has broken down.
- **Age alone:** if you can't recall filling it within your stabilizer's stated window, treat it as suspect even if it looks fine.

When in doubt, don't risk the engine on a guess — dispose of it properly and start fresh.

Disposing of old fuel

Never pour old gasoline on the ground, down a drain, or into the trash. Most communities have a household hazardous waste collection site or event that accepts it — a quick search or call to your local waste authority will point you to the nearest one.

The fuel in the generator's own tank

Your storage plan needs to cover what's inside the machine, not just the cans on the shelf.

When you're putting the generator away for a while, you have two honest choices: stabilize the fuel that's in the tank and carburetor, or run the engine until it stalls out with the fuel valve off, leaving the carburetor essentially dry. Either works — the manual will tell you which your model prefers.

This guide focuses on the fuel itself; for the full walk-through of preparing the whole machine for storage — draining or stabilizing, tending the battery, where it should sit — see our generator storage guide, which picks up right where this page leaves off.

✓ Don't let the tank be the exception

It's easy to stabilize your stored cans and forget the fuel already sitting in the generator itself. Both need the same attention.

Put it all together: a simple plan

Here's a realistic system that doesn't ask too much of you.

- ❑ Keep a modest, clearly labeled, dated supply — not a stockpile.
- ❑ Add stabilizer at fill-up, and note the date on the container.
- ❑ Set a recurring reminder every few months to check and rotate.
- ❑ Run older gasoline through the car or mower rather than letting it linger.
- ❑ Exercise the generator itself periodically under some load.
- ❑ Check propane tanks for damage and confirm they're not due for recertification.

★ I'll help you set this up on a visit

A rotation plan only works if it fits your actual routine. On a visit, I can help you build one you'll really keep up with — and check that your storage spot is a safe one. Call (330) 200-8042.

Common mistakes people make

A handful of avoidable habits account for most fuel-storage trouble.

- **Storing fuel in the attached garage**, a few feet from the water heater's pilot light.
- **Using an old, unlabeled container** and losing track of how old the fuel actually is.
- **Skipping stabilizer** to save a small amount of money on fuel you're counting on months later.
- **Leaving a propane tank on its side** or somewhere it gets direct summer heat.
- **Assuming a full tank from years ago is 'probably fine'** instead of just checking.

! The dangerous one, not just the inconvenient one

Storing gasoline near a flame or pilot light risks a fire, not just a won't-start generator. If anything about your current setup gives you pause reading this, that's worth fixing today, not after the next outage.

A simple fuel-storage checklist

Walk through this before the next outage, not during it.

- ☐ My containers are approved, labeled, and dated.
- ☐ I have stabilizer on hand and know how much to use.
- ☐ My storage spot is detached from the house, ventilated, and away from any flame or pilot light.
- ☐ I'm storing a reasonable amount, not a stockpile that exceeds local fire code.
- ☐ My propane tank (if I have one) looks sound and isn't due for recertification.
- ☐ I have a rotation reminder set, not just a good intention.

✓ Do this today, not during the storm warning

The best time to check your fuel setup is a calm afternoon, not while a storm's bearing down. Five minutes now saves a scramble later.

Questions worth asking

Whether you're asking a dealer, a fire official, or me, these get you real answers.

Q: How much fuel am I actually allowed to store at home?

Local fire codes vary. A quick call to your local fire department will tell you the limit for your address, especially if you're considering more than a couple of standard containers.

Q: Does my area have a household hazardous waste site for old fuel?

Most counties do. Your local waste authority or township office can point you to the nearest drop-off, often with set collection days.

Q: How do I know if my propane tank needs recertification?

Check the stamped date, or simply bring it to a refill or exchange station — they'll check it for you as a routine part of the swap.

Q: Is a metal or plastic gas can better?

Both are fine when approved and in good condition. Choose based on durability and what you're comfortable handling — either does the job when it's rated for fuel and sealed properly.

✓ There's no silly question

Fuel storage rules feel fussier than they need to be. Ask until you're confident — getting it right is what keeps your family safe.

Common Questions

The fuel-storage questions I hear most often, answered plainly.

Q: How long can I really keep gasoline before it's unusable?

Untreated, plan on a matter of months before quality drops noticeably. With stabilizer, commonly up to about a year, though it's best used well within that window. When in doubt, rotate it out.

Q: Can I store gasoline and propane in the same shed?

Yes, as long as the space is detached, ventilated, and away from heat and flame — the same rules that apply to each fuel individually apply together.

Q: Do I need a fireproof cabinet for a couple of gas cans?

For a small, reasonable quantity in approved containers, a detached, ventilated space away from heat is generally sufficient. If you're storing more, ask your local fire department about their recommendations.

Q: What's the single biggest mistake you see?

Fuel that's simply been forgotten — filled once, tucked in a corner, and never rotated. It's the most common reason a generator won't start, and the easiest one to prevent.

★ Let's make sure yours is set up right

If you'd like a second set of eyes on how and where you're storing fuel, I'm glad to take a look on a visit — peace of mind is worth a phone call. (330) 200-8042.

How this fits into your bigger plan

Fuel storage is one piece of being ready — here's how the pieces connect.

This guide has focused specifically on keeping your fuel fresh and safely stored. For how gasoline and propane compare as a choice in the first place — power, cost, cold-weather behavior — see our fuel-types guide.

For preparing the generator itself for a long rest between outages — the engine, the battery, the ideal spot for it to sit — see our generator storage guide. And for the ongoing care that keeps the engine happy for years, our maintenance guide rounds out the picture.

★ One call covers all of it

You don't have to sort out which guide answers which question. Call or text me at (330) 200-8042, describe your setup, and I'll tell you plainly what you're doing right and what's worth changing.

You don't have to do this alone

You just have to remember that a friendly, patient person is one call away.

I hope this guide made keeping your generator fuel fresh and safe feel a little less daunting and a lot more doable. Keep it in a drawer with your other home papers, come back to a page whenever you need it, and don't worry about memorizing anything.

When you'd rather have a hand, that's exactly what I do. I come to your home, work at your pace, and never make you feel rushed or silly for asking. A first visit is a flat \$99, and for the parts that don't need me on-site I can often help right on your screen for \$49. Every visit comes with a 30-day, come-back-free guarantee. I don't do the licensed electrical or gas work myself — for that I'll help you line up a trustworthy local pro.

★ Bill's Home Tech — real help, close to home

Call or text me at (330) 200-8042, or visit BillsHomeTech.com. Serving Atwater and all of Portage County. 30+ years of patient, plain-English tech help — and if you're ever not 100% happy with a visit, I'll make it right or refund it. That's a promise. — Bill

Storing Gasoline vs. Propane

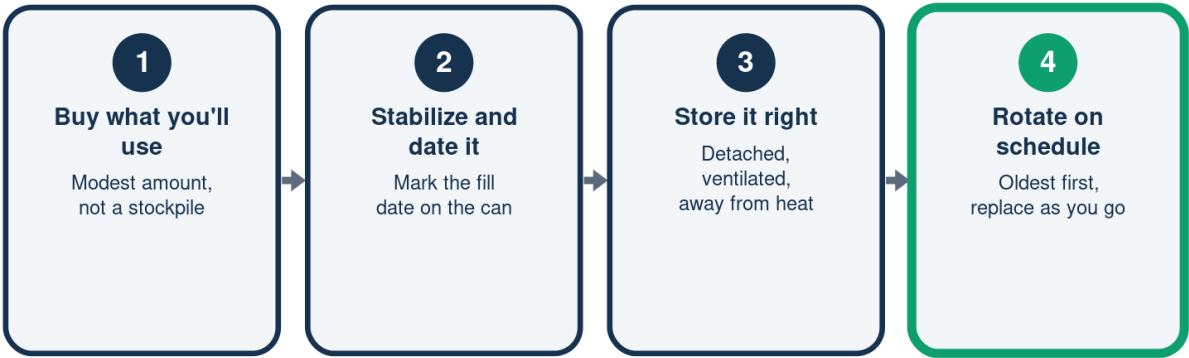
Two fuels, two very different storage lives

	Gasoline	Propane
Shelf life	Months	Years
Needs stabilizer	Yes	No
Container	Approved gas can	Upright cylinder
Main hazard	Fire, vapor	Leak, pressure

Whichever fuel, it lives outdoors, away from heat and flame.

Keeping Fuel Fresh in Four Steps

A simple habit, not a chore



A little and fresh beats a lot and forgotten.

Good Fuel Storage vs. Risky Fuel Storage

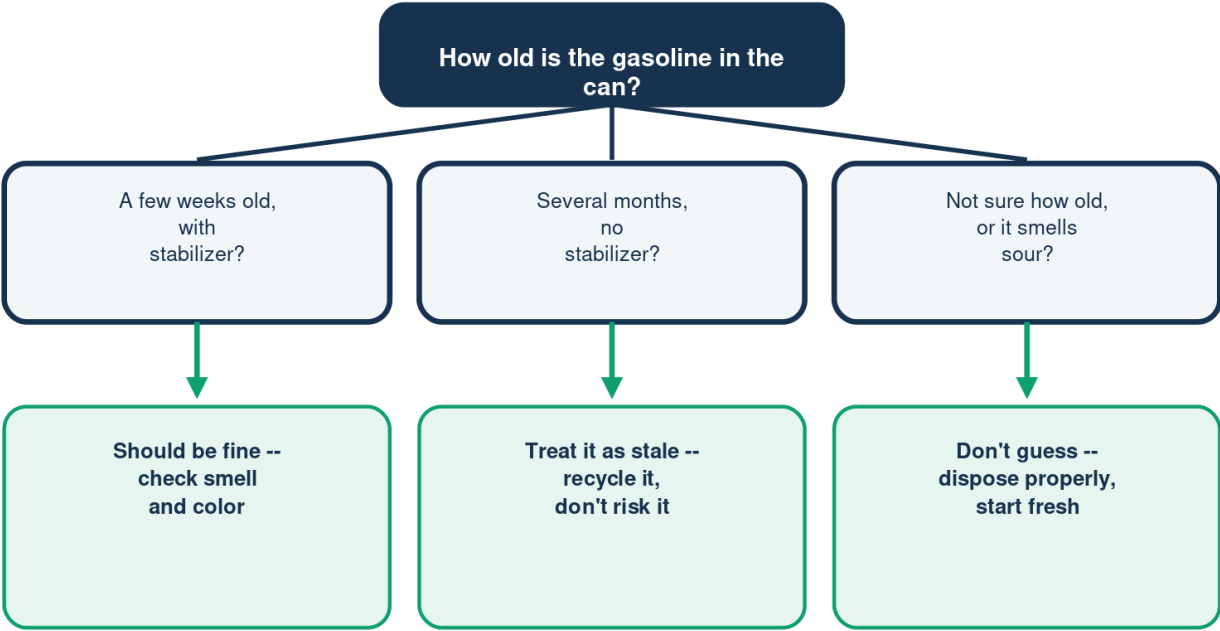
The difference is mostly about location

	Do this	Not this
Location	Detached shed	Attached garage
Near heat	Away from pilot lights	Next to water heater
Container	Approved, sealed can	Old jug or bottle
Propane tank	Upright, outdoors	Basement or trunk

Small changes in location make the biggest safety difference.

Is Your Fuel Still Good?

A quick gut-check before you trust it



Stale fuel is the #1 reason a generator won't start -- don't gamble on it.

Illustration - a schematic, not to scale. Your setup may differ.



Need a Real Person?

You do not have to remember all of it.
You just have to remember you can call.
Friendly, in-home tech help -- I come to you.

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— Bill

Prefer help without a visit?

Bill can screen-share and fix many things remotely — a flat \$49, free for Support Plan members.



A Note From Bill

A quick note from Bill.

I write these guides to make home tech a little less frustrating, and I do my best to keep every step accurate and up to date. Still, every home, device, and setup is a bit different, so I can't promise a guide will match yours exactly or fix your particular problem. These guides are for general information only — they're not professional, legal, or financial advice, and they don't replace your device's own manual or the manufacturer's instructions. Please go slow, use your own good judgment, and use everything here at your own risk. If a step involves electrical wiring, a gas appliance, a water heater, plumbing, or climbing a ladder — or if anything just doesn't feel safe — please stop and call a licensed professional (or give me a call at 330-200-8042). Bill's Home Tech and Bill Davis can't be responsible for any damage, data loss, or injury that comes from using these guides. Thanks for reading, and stay safe out there.

— *Bill*



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