



This Issue:

What's NOT An Emergency
 2026 Safety Days
 Check Out Liaison Library X
 When Hand Digging Is Required

What's NOT an Emergency?

"I'd like to place a dig ticket."

"Yes, it's an emergency."

"I'm installing a fence at 234 Maple Drive."

There are situations when emergency excavation is warranted. Even with the most thorough of planning, unforeseen issues do arise, such as the smell of gas or a break in a facility.

There are also times when the need for "emergency" excavation is not warranted. Unfortunately, some excavators abuse the definition of "emergency." Whether it's an inability to plan properly, forgetting to place a dig ticket or an impatient customer, abuse of the definition of "emergency" is now clearly spelled out in PA Act 287, as amended.

Under recent updates to PA Act 287, an emergency is now defined as "a sudden or unforeseen occurrence involving a clear or immediately danger to life, property **OR** the environment, including, but not limited to, serious breaks or defects in a facility owner's lines."

The definition of an emergency along with a new provision Section 5(22) stating "**To not provide a misrepresentation of an emergency excavation, subject to an administrative penalty imposed under section 7.10.**" is read to anyone calling in tickets, and those entering tickets online must agree to a pop-up window to confirm their work meets the definition of emergency.

As a result of misrepresenting an emergency, excavators can be issued an administrative penalty for abusing the emergency ticket by the Public Utility Commission.

Pennsylvania 811 accepts four types of emergency tickets:

- **Damage report notice** – when a facility is damaged or exposed during excavation or when damage is discovered during excavation;
- **Odor of gas notice** – an odor of gas exists in an area where no excavation is apparent, delivered to gas companies only;

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In the TENTH episode of Liaison Library, the PA 811 Liaisons dive into some of the most recurring violations of PA Act 287 and the steps you can take to avoid them today.

MONDAY
JANUARY 19, 2026
10:00am

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What's NOT an Emergency? continued

- **No One Call notice** – when a third-party witnesses excavation work occurring with no physical markings visible at the work site; and
- **Potential Cross Bore** – called in by plumbers or sewer operators to provide notice of intent to clear a clogged sewer drain prior to using a cutting tool.

Remember, excavators are required to notify Pennsylvania 811 at least three no more than ten business days in advance of beginning excavation or demolition work, unless the project is complex, where a ten-business day notice is required.

Coordinate PA, Pennsylvania 811's project planning application, allows for excavators to schedule tickets for release during projects. This assists the excavator in knowing when to place tickets and keep their project moving.

Pennsylvania 811's damage prevention liaisons are also available to assist with any questions on emergencies and can provide training on project planning and when to place tickets.

Written by: Erika Dominick, Pennsylvania 811 Damage Prevention Liaison

COLOR	UTILITY
WHITE	Proposed Excavation
PINK	Temporary Survey Markings
RED	Electric Power Lines, Cables, Conduit and Lighting Cables
YELLOW	Gas, Oil, Steam, Petroleum or Gaseous Materials
ORANGE	Communication, Alarm or Signal Lines, Cables or Conduit and Traffic Loops
BLUE	Potable Water
PURPLE	Reclaimed Water, Irrigation and Slurry Lines
GREEN	Sewers and Drain Lines

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When Hand Digging is Required

(Keeping in Mind that State Laws Vary)

Excavation is an essential part of construction, utility maintenance, and public infrastructure projects. From installing underground lines to simple landscaping, digging safely is critical to protecting workers, property, and the public. One of the most important safety practices, often required by law, is knowing **when and how to hand dig**.

Striking a buried utility can cause serious injuries, service outages, property damage, and costly fines. A single incident can shut down a jobsite, disrupt essential services such as 911 centers, and put workers at risk. Understanding when hand digging is required, and how to do it correctly, is a fundamental part of excavation safety.

Hand digging allows for precise exposure of underground utilities. Unlike mechanical equipment, which can apply tremendous force in seconds, hand tools enable workers to remove soil gradually and with control. That careful approach minimizes the risk of striking or damaging buried facilities.

Think of hand digging as the **final few inches of safety** before you reach a utility line. It's the precision step; the one that trades speed for certainty. When your excavator bucket is too big and the risk is too high, switching to hand tools is the right move.

Although the rules differ slightly from state to state, the principle is the same everywhere: **if you're near a buried line, slow down, switch tools, and expose it safely.**

Before any digging project begins, every state requires contacting **811**, the national "Call Before You Dig" number. Once a ticket is submitted, local utility companies visit the site and mark their lines with color-coded paint or flags.

These markings are essential, but they don't provide exact locations or depths. They indicate only an **approximate** path of each buried line.

That's why states establish what's called a **tolerance zone**, a buffer area on either side of the markings where extra caution must be used. The tolerance zone typically extends **18" to 24" on either side of the utility**, though some states go as wide as 36". Within this area, mechanical excavation is restricted, and hand digging or approved soft-digging methods are required.

You can think of the tolerance zone as your red flag. Once your machine bucket touches that space, the law, and common sense, says it's time to stop and start hand digging. Hand digging means using manual tools such as shovels, spades, picks, or trenching tools, instead of powered equipment. The goal is to carefully expose utilities without causing damage.

There's also a related method known as **soft digging**, which uses low-pressure water or air to loosen the soil. The loosened soil is then vacuumed away, allowing workers to see and uncover buried facilities without direct contact. Both techniques aim to protect what's underground while allowing excavation to continue safely.

Regulations do vary, but there are consistent situations where hand digging is required or strongly recommended across all states.

- **Inside the Tolerance Zone:**
Once you're within that marked buffer area, mechanical equipment must stop. The rest of the excavation must be done by hand or with a soft-digging method. Markings only show the approximate location, so it's critical to expose the utility visually before proceeding.

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- **When Utility Marks Are Conflicting:**

If the markings on-site are unclear or contradictory, proceed as if a utility could be anywhere in your excavation area. Use hand tools or vacuum excavation until the buried line is found and confirmed.

- **When Crossing Over or Under Known Utilities:**

If your work requires crossing an existing line, hand dig to locate it first. Expose the line completely to verify its depth and position before digging above or below it.

- **In Congested Utility Areas:**

Urban areas and older neighborhoods often have multiple utilities stacked in the ROW. Mechanized equipment is risky in these conditions. Hand digging allows the precision needed to separate and identify each facility safely.

- **In Unstable or Wet Soil:**

When the ground is soft, saturated, or unstable, mechanical digging can cause cave-ins or sudden shifts that damage utilities. Hand digging allows you to control how the soil is removed and keeps the excavation stable.

- **When Required by the Facility Owner:**

Some utility companies have their own stricter rules requiring hand exposure within specific distances from their lines. Always follow each company's instructions, even if they exceed the state's minimum requirements.

They must also understand when to stop work and call for help if something doesn't look right. In excavation, hesitation can be a good thing. Taking the time to verify conditions could prevent a major accident.

While hand digging is a manual process, modern technology is helping make it safer and more efficient. Ground-penetrating radar, electromagnetic locators, and GPS mapping tools can identify and record underground utilities before any excavation occurs. Some companies now document precise coordinates and depths of exposed lines for future mapping.

But even with advanced technology, physical verification through hand digging remains crucial. Soil conditions, interference, or outdated records can make electronic data unreliable. The only way to confirm a utility's exact position is to uncover it by hand.

When excavation work involves buried utilities, safety depends on precision and patience. Following the law, understanding tolerance zones, and using the right techniques help protect not only the crew on-site but also the communities those utilities serve. Hand digging takes more time, but it saves lives, prevents costly damage, and keeps projects moving safely. By respecting state regulations, training crews properly, and never assuming a mark is correct, contractors can dig smarter and safer.

So, when is hand digging required?

Whenever you're close enough to a buried utility that mechanical equipment could cause damage. In excavation, success is measured not by what you hit—but by what you *don't*.

*Written by: Blaire Prough, Pennsylvania
811 Damage Prevention Liaison*



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Pennsylvania 811?**

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Hand digging might sound simple, but it requires proper training and awareness. Workers must know how to read utility markings, interpret jobsite maps, and recognize warning signs of potential hazards.