Dangerous Digs

If you work in construction, or even if there is construction going on in your workplace, you need to be aware of the dangers associated with excavations.

An excavation is a hole in the ground made by mechanical means – in other words, it was dug by a shovel or machine rather than occurring naturally. Excavations are a regular part of road construction. Trenches are also dug to install water, natural gas and power utilities underground. Excavations are made for basements and construction footings as building projects get underway.

If an excavation or trench is not supported adequately or dug properly, it can collapse, trapping and crushing anyone who happens to be inside or standing on the bank. Dirt is surprisingly heavy. Even if the victim's head is not buried in a cave-in, the weight of the soil can suffocate him by crushing his chest.

Other hazards around excavations are falls, engulfment by running water, falling objects such as tools, exposure to underground utilities and encounters with moving equipment.

Here are some reminders for excavation safety on and off the job:

- Call the utility companies so you do not cut into electrical, water or gas lines.
- The soil must be analyzed by a qualified person to determine its stability and how to support it. Danger signals include loose soil, previously excavated ground and the presence of water. Certain types of soil are more likely to crack, crumble or liquefy. Vibration from nearby machinery or traffic can also affect the stability.
- Support the excavation so the soil cannot slide, according to regulations in your area. One method is sloping the sides instead of leaving them steep. Sides of a pit can be shored up with sheets, braces, jacks and other means. A trench must be stabilized by placing a heavy metal shield or box in it

to support the sides.

- Wear the required personal protective equipment, including a hardhat, when working around a construction zone.
- Secure the area so passersby cannot approach or enter the excavation.
- Excavations and heavy equipment are usually found together. Keep your distance from backhoes, dump trucks and other large vehicles. Never assume the operator sees you. Be aware of backup alarms, but never rely on them to alert you to vehicle movement.

As a construction worker, you need training in avoiding hazards around excavations. No matter what your occupation may be, you should know why it is important to stay away from excavations at your plant, along the streets and in your neighborhood. For do-it-yourself weekend construction projects, find out the local requirements for supporting excavations.