

Avoiding Utility Strikes

Toolbox 6: When things go wrong – transcript

Welcome to SafeWork SA's toolbox series on avoiding utility strikes. This series is all about avoiding utility strikes while digging or working near overhead powerlines. This is the sixth episode – When things go wrong. This toolbox episode explains what actions to take if you strike a gas or powerline.

Many incidents occur as a result of striking overhead powerlines by machinery, or damage to underground services during digging and other work involving ground penetration.



In addition to the risk of personal injury, or death, the financial and social costs of damaging services can be extremely high.

Electricity and telecommunication cables and gas and water pipelines may supply entire communities, so every effort should be made to ensure services are not damaged. However, you should be ready to act in case of damage to services.



Gas mains and services

Gas mains can be made from steel, cast iron or plastic. Most gas pipes contain high-pressure gas.

Any damage to gas mains and services can cause a gas leak which may lead to a fire or explosion if an ignition source is present. All flammable gases, regardless of pressure, can be dangerous if leaking.



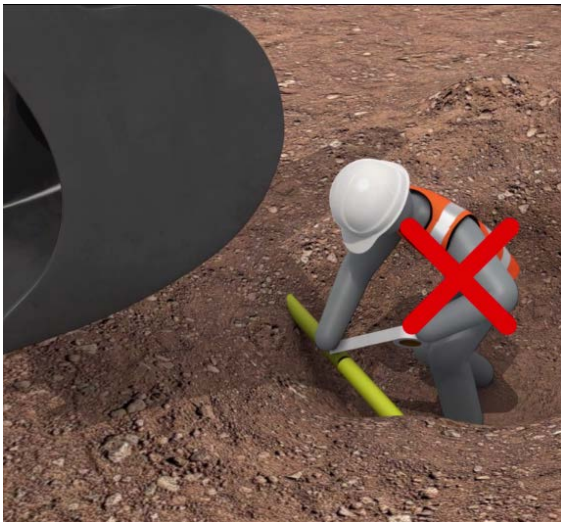
There are two types of leaks following damage to mains and services:

- Damage which causes an immediate gas leak. In this case, there is a risk to those working on or near the mains or service and others working at the site.
- Damage which causes a gas leak sometime after the incident. This may be through damage which

weakens the main or service or the result of poor reinstatement practice. In this instance, the public is mainly at risk.

If an incident occurs involving gas mains and services, the following actions should be taken:

- Firstly, stop all work immediately.
- The operator should then shut down the plant or equipment unless this process causes an ignition source for any escaping gas.
- Under no circumstances should you attempt to stop a gas leak.



- It is important to remember not to back fill the trench with soil or other material.
- Do not attempt to extinguish a gas fire, rather let it burn. In this instance, consider protecting any surrounding property, but only if safe to do so.
- It is essential to leave the cab, operator station, trench, or enclosure, and assemble to a safe location upwind of the leaking gas.
- Report the incident by calling 1800 427 532 or 1800 GAS LEAK
- To keep the area contained, create an exclusion zone due to the risk of explosion or fire.
- For the safety of others, warn all other personnel and the public to keep clear from the worksite and equipment.
- It is very important that you do not attempt to approach, re-enter or start any plant or vehicle until the relevant authorities have determined the site is safe.
- To eliminate any further risk, do not attempt to use any instrument or tool which may provide an

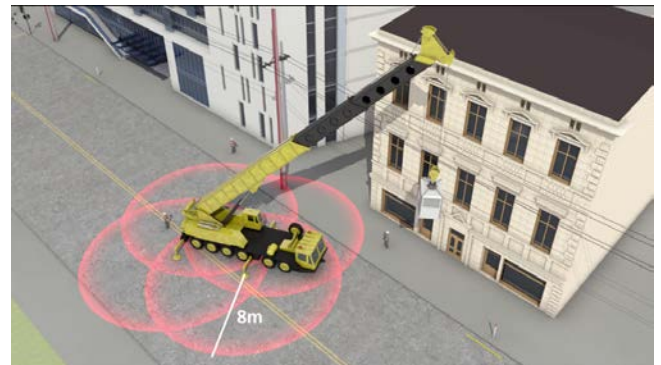
ignition source near the gas leak. This may include mobile phones, two way radios, power tools, or any other electronic device.

- If any person is seriously injured, or there is a risk to life or property call 000.
- Facilitate First Aid treatment as required and ensure this is carried out in a safe location. Noting that gas is an asphyxiant.
- Notify SafeWork SA (1800 777 209 – 24 hour service) if the gas leak exposes a worker or any other person to a serious risk to their health or safety.

Electricity lines

Damage to live electricity cables can cause serious risk of harm or death through electric shock, burns from arc flashing, or subsequent fire.

Electricity will always find all paths to earth including through equipment, vehicles and you. A fallen line or equipment (eg a crane, excavator or vehicle) in contact with a live power line will create a dangerous electric field of approximately eight metres from the contact point.



When things go wrong, the following actions should be taken:

- all work should cease immediately.
- call SA Power Networks on 13 13 66, they will notify appropriate emergency services.

If you are inside a vehicle all occupants should remain inside the vehicle until given the “all clear” to exit by SA Power Networks or an authorised person. Your safest position is to remain in the vehicle.

If it is essential to leave the vehicle due to fire or any other life-threatening reason, remember to jump clear of the vehicle landing with two feet together. Do not touch the vehicle and the ground at the same time.

When moving away from the vehicle, you should shuffle or jump away from the vehicle (with feet together) until you are at least 10 metres clear.

Remember to facilitate First Aid treatment as required and ensure this is carried out in a safe location.

- You must notify the office of the technical regulator (1800 558 811 - 24 hours), in addition, notify SafeWork SA (1800 777 209 - 24 hours) if the strike exposes a worker, or any other person, to a serious risk to their health or safety.
- For your safety, and the safety of others, do not attempt to approach, re-enter, or start the vehicle until the relevant authorities have determined the site is safe.
- Lastly, it is important you do not disturb the incident scene until relevant authorities have provided approval.

Avoiding Utility Strikes

To recap on the avoiding utility strikes toolbox series.

- Always use Dial Before You Dig to get underground service plans.
- Look around for visual clues of services and use cable locators.
- If you come across electrical infrastructure, contact SA Power networks before digging, including potholing.
- Follow good work practices when carrying out excavation work.
- Keep people, machinery and structures a safe distance from power lines.

In an emergency:

1. never try to fix it yourself
2. call 13 13 66 for electrical faults and emergencies
3. call 1800 GASLEAK for gas faults and emergencies
4. treat all wires as live until given the “all clear” by the relevant authority.

Plan and practice emergency procedures regularly.



This concludes the toolbox series. Remember, the consequences of striking underground or overhead infrastructure can be significant, and service interruptions, costly repair bills, injury and even death could be a real possibility.

More information

For further information on work health and safety matters, visit the SafeWork SA website at safework.sa.gov.au or call 1300 365 255.

