

**Gradska plinara Zagreb – Opskrba d.o.o.**  
Radnička cesta 1, Zagreb

## MEASURES FOR EFFECTIVE AND SAFE USE OF GAS

Natural gas is colourless and odourless, but an odorant is added in order to be able to sense it in an open space.

The most common and easiest way of noticing a gas leak is by smelling the added odorant which is exceptionally unpleasant and smells like rotten eggs.

A gas leak from part of a gas installation can be noticed by observing a gas meter. If the gas meter shows the actual consumption (the dial is moving), and all gas consuming devices are turned off, then it indicates the existence of an uncontrolled gas leak. Underground gas leaks can be noticed from withered vegetation above the gas leak spot.

Natural gas is not poisonous, it is lighter than air, easily flammable and explosive. It very quickly creates heats upon combustion. When used properly, there is no danger. However, improper handling of gas installations, chimney systems or air inflows may lead to suffocation, poisoning, fires and/or explosions.

Regular checks and maintenance of gas installation components ensures safe gas supply.

Adhering to following recommendations, check whether you are using gas devices properly:

- **Regular inspection of gas devices**

All gas devices (boilers, stoves, furnaces...) must be regularly serviced by authorised servicepersons. The recommendation is that gas devices for heating areas and hot water (boilers, quick heaters, furnaces...) be serviced at least **once a year**.

- **Regular inspection of chimneys**

If a user has a boiler which is connected to a chimney, it is the obligation of the local chimney cleaner to check the chimney at least **once a year**.

- **Using authorised persons when doing changes to gas installations**

If any works are done on the gas installation, including works on boilers and chimneys, the user must use authorised persons (gas installer, chimney cleaner) to perform such jobs. **All works must be notified to your distributor** after which the distributor's personnel will perform an inspection and test the gas installation.

- **Changes in the air supply system**

If the use has an atmospheric gas device, and if it involves any changes which affect the air supply (installation of PVC windows, installation of kitchen hood, installation of fan...), then the authorised person (gas installer, gas distributor) should be contacted for professional advice because air supply significantly affects the combustion process in atmospheric gas devices.

## ATMOSPHERIC GAS DEVICES

**Atmospheric boilers** are devices which take air for combustion from the area in which they are installed, and flue gas exits through a chimney. Air supply is one of the basic conditions for proper operation of atmospheric boilers, and inspections can be done to check the following elements:

- **Ventilation openings in bathroom doors**

In the doors of areas in which an atmospheric boiler is installed (mostly bathrooms), **ventilation openings** must be installed in the lower or upper part of doors (2 x 150 cm<sup>2</sup>) to ensure adequate exchanging of air necessary for combustion.

- **Undercutting of all doors in a residence**

All doors in a residence must be undercut **in the bottom section by 2 cm**.

- **Installation of PVC windows**

If PVC windows are installed in a residence, the outer wall have a ventilation opening in the upper and lower section of the wall (2 x 75 cm<sup>2</sup>). In fact, given that PVC windows provide a 100% seal, after a while the air is used up in the residence, and negative air pressure is created possibly causing the return of flue gas.

- **Installation of fan in bathroom**

A fan in a bathroom **must not be turned on at the same time the boiler**, i.e., it must be switched off because the operating fan very quickly creates negative air pressure in the bathroom.

- **Use of a kitchen hood**

The use of kitchen hoods **must not be used at the same time as a boiler**, as operation of the kitchen hood creates negative air pressure in the residence, i.e., the return flow of flue gas from boilers or chimneys. Authorised boiler servicepersons may install special devices which switch off devices, i.e., the kitchen hood and boiler at the same time.

Detailed descriptive instructions for safe and effective use of gas can be found from your distribution system operator.

### Safety measures if noticing a gas leak

- Immediately turn off the flame,
- Immediately open all windows and doors,
- Immediately disconnect the gas supply on the gas meter valve or house connection,
- In areas in which gas is noticed, do not enter with an open flame,
- Do not light matches, lighters or the like, do not smoke,
- Do not switch on electrical breakers,
- Do not withdraw plugs from sockets,
- Do not switch on electrical door bells,
- Do not rely on only your own sense of smell, call in other persons,
- Switch on lights only when the smell of gas is not felt anymore

Systematic maintenance of gas installations and associated elements, preventive checks, regular servicing, rectifying possible insufficiencies and adhering to the manufacturer's instructions enables you to also achieve a higher level of effectiveness.

- Thermal insulation of the house or apartment, replacement of old windows and installing new ones with insulating glass reduces consumption by 40% or more
- Installation of thermostat radiator valves which regulate the desired temperature in rooms
- Do not overheat rooms in which people reside. The optimal temperature in such rooms is 20 °C.
- For each degree of increase in temperature in a room, the energy consumption also increases
- Heating pipes passing through unheated rooms (basements, stairways, storage areas, attics) require thermal insulation in order to prevent unnecessary losses
- The heating system should be hydraulically balanced.
- Radiators must not be obstructed by curtains, furniture or clothing, which otherwise obstructs natural air flow.
- All valves that leak hot water in the closed position should be replaced.

**In case you require an emergency intervention due to the smell of gas, no gas inside the installations, fire, or smell of returning flue gases from your boiler, due to possible poisoning, call the emergency services (24/7) of Gradska plinara Zagreb at **0800 400400**.**

