

BECAUSE WE BELIEVE IN THE VALUE  
OF MEASURED PROTECTION.

THE MOST ADVANCED SYSTEMS FOR  
SECURITY AGAINST THE MOST DELICATE HAZARDS



**W-FOG System**  
for the protection of

**NATURAL  
GAS PLANTS**



The natural gas treatment and processing plants are the installations of strategic importance, keeping in mind the high energy dependence on this type of fuel, these are considered important at the global level

These are processing and packaging infrastructure of a mixture of gases, mainly methane, obtained in oil explorations.

The production phases include: extraction, processing, liquefaction, storage, regasification, transport and distribution up to the end consumer. In any of them, the hazard of fire or accident is very high because it is a very light gas with high flammable and explosive potential.

The focus on the protection of gas plants has to be, therefore, proactive, decidedly aimed at preventing hazardous conditions

that may result in a casualty or, rather, an accident, prevent its spread and damage to people.

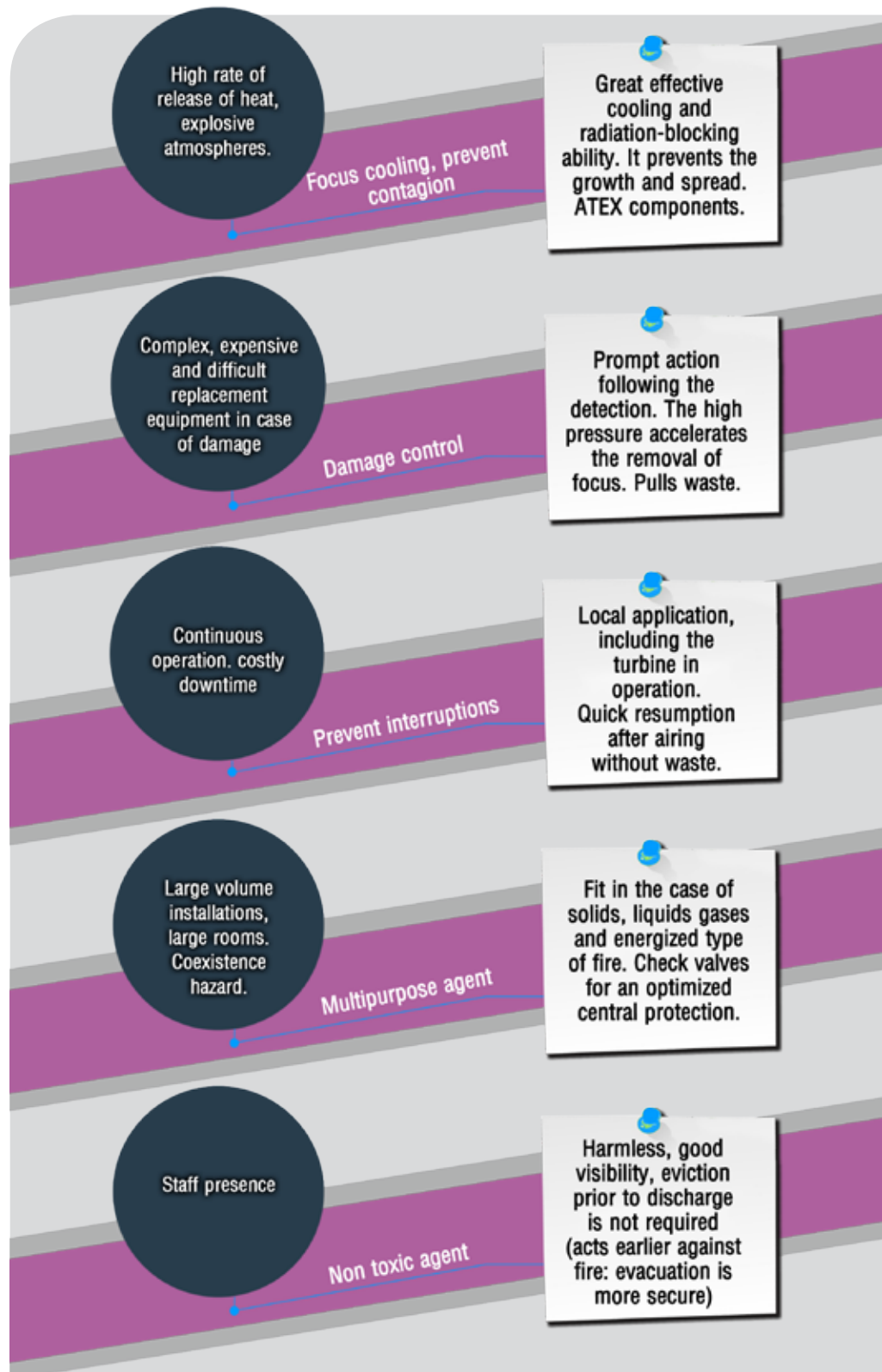
Moreover, depending on location, the response time of emergency personnel can take "hours", thereby PCI team must study, design and size for each case and in every situation. The water mist due to its consumption up to 90% less than the sprinklers attached to high permanence after discharge, protects the auxiliary uses with lower agent demand and / or for longer period.

Tanks and natural gas deposits require a specific protection. For all other associated uses RG water mist equipment systems complete the protection of these economically valuable and potentially destructive facilities.



# WHY USE RG W-FOG IN NATURAL GAS PLANT

***The treatment plants and the processing of natural gas are strategic facilities, and are important at the global level given the high energy dependence of this fuel.***



# PROTECTION NEEDS IN GAS FACILITIES

The main problem, and more dangerous, is the natural gas leak: its low molecular weight makes it gasify instantaneously and produce a mixture rich in O<sub>2</sub> with the ambient air. In this situation, any ignition source causes the accident (spark, hot focus, etc.)

Because of the high cost and serious human, material and financial consequences, taking appropriate protective measures is the key.

The plants have to comply with current regulations and NFPA 59A for fire protection, "Production, Storage and Handling of Liquefied Natural Gas (LNG)"

## PREVENTION PHASE

Includes the tasks of design of facilities and ongoing maintenance. Resistance specifications of materials, distribution pipeline network and safe separation distances between tanks have to be complied with.

## PHASE CONTROL

Consist of spill containment systems, designed to isolate leaks, detect dangerous mixtures and remotely operate the cutting devices, blocking and ventilation.

## EXTINCTION PHASE

In the event of a fire, the extinguishing agent is automatically applied. It will also act on the leakage point and valves.





*Two demands or protection needs to  
comply with occur simultaneously:*

**ACTING AS QUICKLY AS POSSIBLE, EVEN  
IMMEDIATELY AFTER THE MAIN SIGNAL.**

### **PROTECTION OF THE PRESENT PERSONNEL**

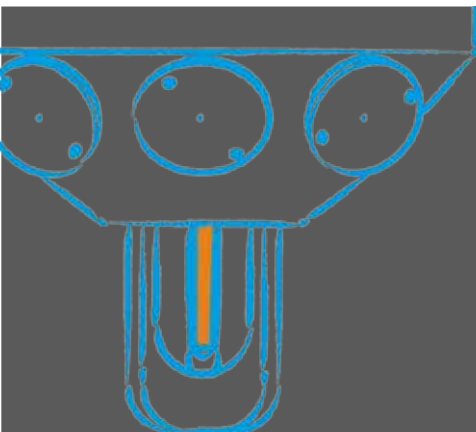
Therefore, using a safe agent such as water is highly recommended because of its locally acting capacity without having to wait for the sealing of rooms or evacuation of the occupants. These, in turn, may be exposed without any danger to water discharge and exit easily due to good visibility.



# PROTECTION WITH WATER MIST

In a natural gas treatment plant, in addition to these risks from leaks and spills, which have their own specific extinguishing media, there are other sources for which the water mist, because of its properties, proves optimal.

For its high cooling and heat blocking capacity, it quickly reduces the high flammability temperature in these facilities. In addition, single pumping equipment can cover an entire floor, providing significant benefits to each of the following sources of hazards:



## CONTROL ROOMS:

include electronics, wiring, etc., and are usually occupied.

- Protects equipment and staff without damages, it is harmless
- Leaves no residue
- The resumption and cleaning times are minimal, not cut in the activity

## LOADING AND DOWNLOAD AREAS:

at own risk of gas, is compounded by the presence of fuel, more dirt, spills in the transfer and focuses of the nearby heat.

- It is suitable for solid, combustible liquids, gases and electrical fires.
- The prolonged action up to 30 or more minutes is allowed if necessary

## ELECTRICAL EQUIPMENT:

hazards of energized fires in confined spaces with high density wiring.

- The drag effect prevents smoke and corrosive waste by-products
- Does not conduct electricity, suitable for energized fires

## EQUIPMENT OF VENTILATION:

According to their extraction capacity, 'local application to be considered.

- Enables Design without total sealing
- The high pressure and small droplet size facilitates the penetration between components, reaching hidden pockets, which are otherwise hard to reach.

## ANY HEAT SPOT:

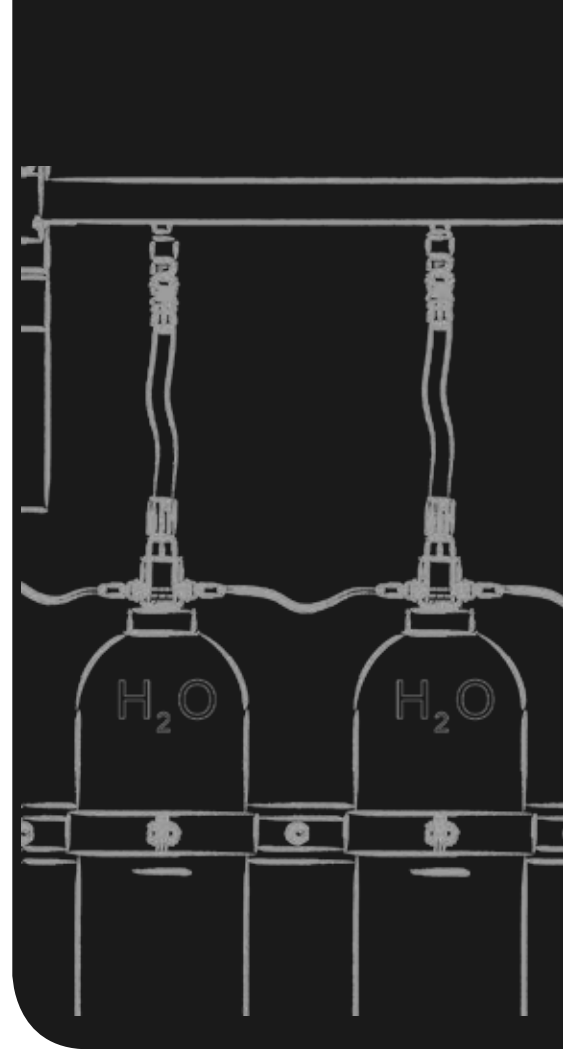
near a flammable substance

- Rapidly reduces the temperature of maximum due to its high heat absorption rate
- Confines the spot, blocking the release of heat and further spread
- Its high prevalence in air suspension avoids reignitions

## STAFF ROOMS:

offices, etc., etc.

- Clarifies the atmosphere to facilitate the evacuation while avoiding risk (panic))
- Is completely safe and advisable to use in occupied venues.
- Maintains appropriate evacuation conditions for longer duration of time



C. Alfoz de Bricia, 4 P.I. Villalonguéjar  
09001 BURGOS (SPAIN)

Tlfn. +34 947 28 11 30

Fax. +34 947 28 11 12

[www.rg-systems.com](http://www.rg-systems.com)



**THINK  
GREEN**