

Press Release

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Heading of PR: The Safe operation of Gas systems

South Africa has experienced commercial and industrial gas-related incident reporting fires and explosions costing domestic, commercial and industrial facilities millions of Rands. However, these statistics say nothing of numerous other smaller events that occur and go unrecorded, such as boiler fires, process oven failures, piping ruptures, non-conforming installation, and non-suited/non approved equipment amongst others. These have been the cause of unpublicised damages and injuries. Unfortunately, action is often only taken on these issues after some large and tragic event occurs.

The Pressure Equipment Regulations (PER) state; “No Person shall...

(a) handle, store or distribute any gas in any manner, which includes the filling of a container, other than in accordance with the relevant health and safety standard incorporated into these Regulations under section 44 of the Act;

(b) install or remove an appliance, pressure equipment or system for gas in any manner other than in accordance with the relevant safety standard incorporated into these Regulations under section 44 of the Act;

(c) install or remove a gas appliance, or a gas system or a gas reticulation system, unless such person is an authorised person. “

Taking the above regulations into consideration, one needs to consider the experience, knowledge, qualification, and competency of any person, whether internal or contracted, working in the gas industry or with gas-related equipment. Unless properly trained and qualified, no personnel or operator should be permitted to attempt repairing/replacing pipes or pressure equipment, tune burners, work on or replace burner management/control systems.

Combustion equipment safety is critical to the daily operation of all facilities and the safety of every employee, yet awareness on this topic is lacking simply because it is deemed too “complicated”. It takes diligence and understanding to protect employees, facilities and industrial organisations from combustion-related incidents involving fuel-fired equipment

Being competent in only a specific field (silo approach) is not enough, persons working on gas systems should have a total understanding of the complete and integrated philosophy and functionality of gas systems (lateral approach). Once again, understanding the gas system or specifically combustion equipment safety is very critical from a performance and maintenance perspective.

An equal amount of emphasis should be placed on the importance of using correct and compliant equipment, which also conforms to the required health and safety standards. There is typically no screening for how far away from the most recent health and safety standards the old “grandfathered” technology has become. Passing a statutory inspection sometimes means that you

could be “technically” in compliance with archaic and antiquated equipment that is 50 or more years old. This could be equipment that requires many manual steps to operate safely and presents serious risk of improper manual start-up or shutdown daily. Equipment could be “in compliance” with this kind of inspection, but quite far from the current health and safety standards ‘level of safety.’

***Should grandfather equipment be progressively upgraded in line with newer technologies?
Possibly, from a financial perspective probably “no or not now”, from a safety perspective a definite “yes”***

The risk assessment of current gas equipment and gas systems needs to be ongoing and analytically direct the way to concrete affirmations of upgrading the site's equipment

Once an incident occurs, it means years of court cases, job losses and changes, higher insurance rates, and maybe even criminal litigation. It also takes years to overcome the stigma of possible safety credibility to employees, industry and the community at large

How should one **ensure the safe operation of gas systems?**

Start with a review of the equipment’s state of protection relative to current health and safety standards, - an equipment “gap analysis.” Prioritise your needs and address them at a comfortable pace. Conduct a human “gap analysis” to identify the state of knowledge and skills regarding your operations and maintenance staff. Make training a regular and serious effort. The bottom line is that by ensuring persons are competent and implementing comprehensive equipment safety programs saves lives.

The right thing to do is to be proactive and the very least is to ensure imported and supplied equipment conforms to the required regulations and ensure permits from the required authority, in this case, the Southern African Gas Association (SAGA) has been obtained.

About SAGA

We ensure all industry stakeholders in the methane based environment provide safe and efficient downstream operations to users in the domestic, commercial and industrial markets within Southern Africa:

- Educating in safety and standards
- Providing qualified gas practitioners
- Assisting industry to comply with relevant legislation
- Administering a safe gas equipment scheme
- Ensuring a climate conducive to safety
- Advocating the efficient use of gas and equipment
- Interface with government on regulatory issues
- Upholding sound environmental practices